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(1872-1962)

By

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PREFACE

The need for a Bibliography and Index of the *Transactions* became apparent when in 1948 I first started my project on the Geography of Kansas articles. Previous to this time a Table of Contents, Volumes 1 to 33, published in 1930 in Volume 33 was extant. This Table of Contents, however, advertized as an Index, proved to be, for practical research purposes, of very little value. The more than 22,000 pages of printed text and illustrations comprising Volume 1 published first in 1872 to and including Volume 65 issued in 1962 of the *Transactions* contain a wealth of scientific information, especially as related to Kansas. This work, therefore, is designed primarily to unlock this storehouse of scientific data making it possible not only to discover what has been published in the *Transactions* but also to save countless hours of the user's time in searching the literature.

The Bibliography lists 1,415 authors and 2,763 articles. The citations are listed alphabetically by author, with full title and publication data. Entries under each author are listed in chronological order.

The Index is based upon the key words in the title of each article listed in the Bibliography. The subject index consists of 3,276 topics or key words so that each article is cross-indexed several times. The numbers after the author's name refer to entries in the Bibliography.

Much valuable information is contained in the *Transactions* that lends itself for quick inspection in the form of tables, data that in many instances are useful especially to Academy officers, Academy Council members, and those interested in the functioning of the Academy and in its history. The Appendices, A to N, are all in the form of tables, except Appendix A. Appendix A lists special publications of the Kansas Academy of Science which have been printed and distributed in addition to the *Transactions* and three special references pertaining to the preparation of manuscripts and illustrations intended for possible publication in the *Transactions*. There may be other special publications of the Kansas Academy of Science extant but those listed are the only ones known to me.

In a work of this kind embracing many fields of science and compiled by a scientist whose experience is more or less confined to the physical science discipline, chances for error are unlimited especially as related to the scientific names applied to animals and plants. I am, therefore, greatly indebted to Dr. A. Byron Leonard, chairman of the Department of Zoology at The University of Kansas, for checking the spelling, capitalization and italicization of names common to the life science disciplines. I am confident, however, that any errors that may still prevail in this work and for which I assume all responsibility will in nowise render this work unusable. A word of thanks is also due the Allen Press of Lawrence for the unusually fine work of editing and proofreading the printer's galleys before submitting them to the author and compiler of this work.

Walter H. Schoewe
Editor, *Transactions*
Kansas Academy of Science

State Geological Survey of Kansas
and Department of Geology
The University of Kansas
August, 1964

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4. Botanical notes, 1917–1918: V. 29, p. 85, 1920.
5. A half century of bacteriology: V. 29, p. 23–34, 1920.
6. Botanical notes for 1918–1919: V. 30, p. 121–123, 1922.
7. Botanical notes for 1920: V. 30, p. 392–394, 1922.
8. Botanical notes 1921–1928: V. 32, p. 117–129, 1929.
9. (and Schaefer, Helen I.) Notable trees of Kansas, I: V. 38, p. 93–98, fig. 1–7, 1935.
10. Botanical notes for 1935: V. 39, p. 59–61, 1937.
11. (and Schaefer, Helen I.) Notable trees of Kansas, II: V. 39, p. 63–81, fig. 1–24, 1937.
12. Botanical notes, 1936: V. 40, p. 59–60, 1938.
13. Notable trees of Kansas, III: V. 40, p. 61–63, fig. 1–2, 1938.
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23. Botanical notes, 1952: V. 56, no. 3, p. 313–314, 1953.
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3. Monument Rocks, Gove County, Kansas: Vegetation: V. 42, p. 326–327, 1939.
4. Prairie studies in west-central Kansas: V. 42, p. 97–107, fig. 1–7, tables 1–5, 1939.
5. Studies of native and red cedars in west-central Kansas: V. 43, p. 85–95, plates 1–3, fig. 1–10, tables 1–2, 1940.
6. Vegetation, II: The Castle Rock area in Gove County, Kansas: V. 43, p. 302–303, plate 1, fig. 1–2, 1940.
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8. Prairie studies in west-central Kansas, 1941: V. 45, p. 47–54, fig. 1–6, tables 1–4, 1942.
9. Prairie studies in west-central Kansas, 1942: V. 46, p. 81–84, fig. 1–2, 1943.
10. Prairie studies in west-central Kansas, 1943: V. 47, no. 3, p. 405–414, fig. 1–3, 1945.
11. Man's disorder of nature's design in the Great Plains: V. 52, no. 2, p. 117–131, fig. 1–8, 1949.
12. See: Blair, Byron O. 2.
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1. Experiments upon the extirpation of the pituitary and thyroid glands in tadpoles: V. 28, p. 245–248, 1918.
2. The relation between the germ cells and the environment: V. 28, p. 248–253, 1918.

Allen, G. M.

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1. Heating values of gases of the Midcontinental field: V. 27, p. 71–73, tables 1–4, 1915.
2. Analysis and comparative heating values of natural gas and coals: V. 28, p. 185–186, 1918.
3. See: Bartow, E. 2.

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Vegetative keys to the polemoniales of Kansas: V. 35, p. 196–208, fig. 1–5, 1932.

Allison, Vernon C.

Some dragon flies of southeastern Kansas: V. 30, p. 45–58, 1922.

Alm, O. W.

1. The effects of associative-inhibition upon performance in humans: V. 35, p. 120–128, 1932.
2. The course offerings and curricular requirements of psychology in schools of diversified technology: V. 39, p. 203–309, tables 1–4, 1937.
3. The report of the committee to study educational trends in secondary schools of the State with respect to basic sciences: V. 41, p. 275–294, tables 1–16, 1938.
4. See: Parrish, D. B. 2.

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1. An unusual anomaly of postcaval tributary in the thoracic region of the domestic cat: V. 42, p. 421–422, unnumbered fig., 1939.
2. Parasites of the coyote in Kansas: V. 58, no. 2, p. 208–210, 1955.
3. Robert Taft: V. 58, no. 4, p. 449–451, photograph p. 448, 1955.
4. The maintenance of parasitism: V. 59, no. 2, p. 147–155, 1956.
5. See: Ackert, J. E. 6.
6. See: Gaafar, S. M. 1.

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(and Sayre, L. E.) Examination of *Solanum rostratum*: V. 13, p. 21–23, 1893.

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2. See: Reitz, L. P. 2.

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1. (and Nelson, Bernard C.) Additional records of mammals of Kansas: V. 60, no. 3, p. 302–312, 1958.
2. (and Russell, Robert J.) Color and dental abnormalities in an Aplodontia: V. 60, no. 2, p. 181–182, fig. 1, 1957.

Anderson, Mary R.

Standardization of the general aptitude test battery for three certification areas at Stephens College: V. 57, no. 3, p. 354–365, tables 1–9, 1954.

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1. See: Taft, Robert 39.
2. See: Taft, Robert 41.

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1. (and Johnson, H. B.) Conductance studies of aqueous solutions of antihistamines at 25°C.: V. 56, no. 4, p. 449–455, fig. 1–2, tables 1–4, 1953.
2. See: Lyons, Thomas D.
3. (and Anderson, B. V.) Electrophoretic analysis of the white of the chicken egg: V. 59, no. 1, p. 18–27, tables 1–2, fig. 1–5, 1956.
4. (and Johnson, H. B.) The isopiestic activity coefficients of the antihistamine histadyl, in aqueous solution at 25°C.: V. 64, no. 4, p. 311–314, 1961.

Andrews, Frank C.

(and Andrews, A. C.) The form of the equilibrium distributional function: V. 65, no. 3, p. 247–256, 1962.

Andrews, Ted F.

1. (and Breukelman, John) Studies in Kansas limnology I. Survey of the Kansas state lakes: V. 55, no. 3, p. 315–329, fig. 1–4, table 1, 1952.
2. (and Stephens, Homer A.) Colonies of Great Blue Heron in Kansas: V. 59, no. 3, p. 279–308, 1956.
3. Future role of the Kansas Academy of Science: V. 62, no. 2, p. 123–133, 1959.
4. See: Brukelman, John 11.
5. See: Clarke, Robert F. 4.

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(and Owen, Don E.) Sedimentologic study of two members of the Beacon formation, Windy Gully, Victoria Land, Antarctica: V. 65, no. 1, p. 61–69, fig. 1–5, 1962.

Argersinger, W. J., Jr.

1. On the curvature of freezing point lines in two component systems: V. 50, p. 216–224, fig. 1–3, 1947.
2. Chemical aspects of the development of radioactivity: V. 53, p. 151–164, fig. 1–2, 1950.
3. (and Davidson, A. W., and Bonner Oscar D.) Thermodynamis and ion exchange phenomena: V. 53, p. 404–410, fig. 1, table 1, 1950.
4. Institutional research: V. 65, no. 1, p. 10–17, 1962.

Armitage, K. B.

1. Observation of parental behavior of *Cichlasoma nigrofasciatum* (Guenther): V. 63, no. 4, p. 269–275, 1960.
2. Species composition and seasonal distribution of limnetic crustacean zooplankton of northeastern Kansas: V. 64, no. 1, p. 27–35, tables 1–6, 1961.

Askren, Edward L., Jr.

1. Eye muscle imbalance among college students: V. 39, p. 151–158, fig. 1–7, 1937.
2. Nutritional factors influencing vision—A review of literature: V. 39, p. 115–120, 1937.

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(and Pittman, Martha S.) The nutritive values and cost of food consumed by men and women in a college residence hall: V. 40, p. 293–295, tables 1–2, 1938.

Atkinson, F. W.

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See: Patrick, G. E. 1.

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See: Wimmer, E. J. 1.

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How hens perform in an ideal environment: V. 52, no. 4, p. 468–469, 1949.

Azarnoff, Daniel L.

(and Roofe, Paul G.) The effects of total body Roentgen irradiation on the endocrine glands and other organs of the rat: V. 55, no. 2, p. 184–195, fig. 1–8, tables 1–3, 1952.

Bailey, E. H. S.

1. The utilization of mineral waters: V. 9, p. 28–29, 1885.
2. On the composition of some culinary utensils: V. 9, p. 29–30, 1885.
3. Organic and physiological chemistry: V. 9, p. 87–91, fig. 1–3, 1885.
4. (and Walter, W. E.) The water of the Ft. Scott artesian well: V. 9, p. 96–98, 1885.
5. (and Powell, L. M.) Some special tests in regard to the delicacy of the sense of smell: V. 9, p. 100–101, 1885.
6. On the occurrence of bromides and iodides in the water of an artesian well at Independence, Kansas: V. 10, p. 22–23, 1887.
7. (and Franklin, E. C.) The relative bitterness of different bitter substances: V. 10, p. 23–24, 1887.
8. Miscellaneous chemical notes: V. 10, p. 62–63, 1887.
9. On the newly discovered salt beds in Ellsworth County, Kansas: V. 11, p. 8–10, 1889.
10. Some experiments on the relation between the taste and the acidity of certain acids: V. 11, p. 10, 1889.
11. The composition of Kansas coals: V. 11, p. 46–49, tables A–H, 1889.
12. On the economic values of corn-cobs: V. 11, p. 46–49, 1889.
13. Some Kansas mineral waters: V. 12, p. 25–29, 1890.
14. (and Slosson, E. E.) On barite and associated minerals in the concretionary rocks of eastern Kansas: V. 12, p. 45–46, 1890.
15. (and Case, E. C.) On the composition of some Kansas building stones: V. 13, p. 78, 1893.
16. "Feather Alum" from Colorado: V. 12, p. 101, 1890.
17. Selective power of the sense of taste: V. 12, p. 101, 1890.
18. Small things: V. 14, p. 6–13, 1896.
19. (and Rice, Mary A.) On the composition of water from a mineral spring in the vicinity of "The Great Spirit Spring," Mitchell County, Kansas: V. 14, p. 40–41, 1896.

20. (and Smyth, B. B.) In Memoriam: James H. Carruth: V. 15, p. 135–136, 1898.
21. The chemical composition of cement plaster: V. 16, p. 38–40, 1899.
22. On the occurrence of nitrates in well waters: V. 16, p. 40–42, 1899.
23. A report on the mineral springs and wells of Kansas: V. 16, p. 42–43, 1899.
24. Experiments on the relative heating power of coal and illuminating gas: V. 17, p. 35–38, fig. 1 unnumbered, 1901.
25. A study of dietaries at Lawrence, Kansas: V. 18, p. 49–53, 1903.
26. Some sandstone waters of great purity: V. 18, p. 68–69, 1903.
27. What rights have education institutions to duty-free importations: V. 19, p. 379–380, 1905.
28. (and Stromquist, W. G.) On the durability of cement plaster: V. 20, p. 61–63, 1906.
29. Sanitary water analysis: V. 21, p. 66–68, 1908.
30. Memorial Address: Francis Huntington Snow Memorial: V. 22, p. 36–38, 1909.
31. (and Tague, E. L.) On the coloring matter in fruit juices: V. 23, p. 41–42, 1909.
32. (and Sayre, L. E.) On the presence of barium in the ash and extract of certain Kansas weeds: V. 24, p. 194–198, tables 1–2, 1910.
33. (and Jackson, H. L.) On the powered sugar of Commerce: V. 25, p. 27–28, 1913.
34. A convenient card catalogue of food adulterants: V. 27, p. 129–130, 1915.
35. Necrology: Frank Olin Marvin: V. 27, p. 135–137, 1915.
36. Foreign additions to our dietary: V. 28, p. 147–152, 1918.
37. (and Tong, W. S.) On the occurrence of starch in green fruits: V. 28, p. 153–155, 1918.
38. Chemistry in Kansas during the past fifty years: V. 29, p. 44–45, 1920.
39. The economic values of by-product foods: V. 31, p. 53–54, 1928.
40. Needed reforms in packing food products: V. 31, p. 54–56, 1928.
41. Water solubility an economic force: V. 31, p. 56–59, 1928.
42. See: Failyer, G. H. 11.

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A survey of the filamentous green algae of Labette County, Kansas: V. 35, p. 190–195, plate 1, map 1, 1932.

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Mammals of western Kansas: V. 11, p. 56–58, 1889.

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The effect of subcutaneous injections of antuitrin-S on the anoestrous male ground squirrel: V. 38, p. 253, 1935.

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Notes on the culture of wild flowers: V. 19, p. 214–217, plate 27, 1905.

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Primary forces: V. 31, p. 63–65, 1926.

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1. Mammals from owl pellets taken in Coahuila, Mexico: V. 56, no. 2, p. 253–254, 1953.
2. A hoary bat from northwestern Kansas: V. 57, no. 2, p. 196, 1954.
3. See: Robinson, Thane S. 1.
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1. The so-called DP-Apathy in Germany's DP camps: V. 55, no. 1, p. 62–86, 1952.
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3. Suggestion of the true theory of number: V. 3, p. 94–98, 1874.

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1. (and Smits, B. L.) Kojic acid—a review: V. 37, p. 91–114, tables 1–2, 1934.
2. (and Campbell, Carol Lois) Some effects of the progressive absorption and desorption of palmitic acid on the behavior of a sorghum grain starch: V. 53, no. 2, p. 235–253, table 1, fig. 1–10, 1950.
3. See: Lanning, F. C. 3.
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A revision of *Senecio aureus* Linn. and allied species: V. 65, no. 3, p. 318–364, fig. 1–5; V. 65, no. 4, p. 365–408, fig. 6–11, 1962.

Barnabas, Bentley

1. Twelve tests that have proved practical in commercial applications: V. 50, no. 2, p. 204–207, 1947.
2. A study of speed-power and verbal-quantitative scores for the personnel test: V. 58, no. 1, p. 111–114, 1955.
3. The apt performance tests for screening in business situations: V. 58, no. 3, p. 419–423, 1955.
4. See: Shultz, Irvin T. 2.

Barnett, R. J.

Ground cover affects frost penetration: V. 40, p. 203–207, fig. 1–6, 1938.

Barnhart, Carl H.

The use of fossils in teaching biology: V. 43, p. 355–356, 1941.

Bartell, M. H.

See: West, R. R.

Bartholomew, Elam

1. The Kansas Uredineae: V. 16, p. 168–196, 1899.
2. Edible mushrooms of Kansas: V. 30, p. 174–179, 1922.
3. Addition to "the fungous flora of Kansas": V. 33, p. 82–83, 1930.
4. Second list of additions to the "fungous flora of Kansas": V. 36, p. 71, 1933.

Bartley, S. H.

(and Newman, E. B.) Recording action currents: V. 33, p. 78–81, 1930.

Barton, Arthur W.

1. Effect of long-continued soaking on seed germination: V. 32, p. 37, 1929.
2. Studies in autolysis: I. Autolysis in seeds: V. 32, p. 34–36, 1929.
3. (and Moore, Ruth) Cacao bean and elimination: V. 33, p. 136, 1930.
4. Plant sap and juice: I. Hydrogen-ion concentration and other data: V. 36, p. 72–75, table 1, 1933.
5. Cacao and elimination: Some personal experiences: V. 37, p. 169, 1934.
6. Plant sap and juice: III. Data for the spring of 1934: V. 37, p. 71, 1934.
7. Papain, a proteolytic vegetable ferment: V. 41, p. 165–166, 1938.
8. See: Brennan, L. A.

Bartow, Edward

1. (and McCollum, Elmer V.) Some Kansas petroleum: V. 18, p. 57–58, 1903.
2. Water supplies of southeastern Kansas: V. 19, p. 39–48, plate no. 5, 1905.
3. (and Allen, H. C.) A new derivative of diazo-amido-benzene: V. 19, p. 69–70, 1905.
4. (and McCollum, Elmer) Kansas petroleum: V. 19, p. 56–59, 1905.
5. Examination of coal dust after explosions in mines of southeastern Kansas: V. 20, p. 228–229, 1906.

Bascom, John Upton

See: Harman, Mary T. 20.

Bass, William M.

(and Birkby, Walter H.) A human calvarium from Ford County, Texas: V. 65, no. 1, p. 80–86, fig. 1, 1962.

Bates, F. C.

Tornadoes in the central United States: V. 65, no. 3, p. 215–246, fig. 1–17, 1962.

Bates, James C.

1. Seed germination and development of the seedling of *Commelina virginica*: V. 42, p. 109–112, plate I–II, fig. 1–11, 1939.
2. Preliminary investigation on the translocation of food between vegetative organs and fruits in the wheat plant: V. 44, p. 128–129, 1941.

Baumgartner, Edward

Loss of teeth as a disqualification for military service: V. 18, p. 217–219, 1903.

Baumgartner, W. J.

1. What moving forces are found in the follicles of the orthopteran testes?: V. 33, p. 107–110, 1930.
2. A record of zoology majors of the University of Kansas: V. 35, p. 67–77, 1932.
3. Remains of a fetal pig retained in the uterus of a sow: V. 35, p. 81–84, 1932.
4. Pseudopodia and flowing cytoplasmic movements in living germ cells: V. 36, p. 209–212, plate 1, 1933.
5. The cell in growth and reproduction: V. 39, p. 45–51, 1937.
6. (and Everham, B. J.) A double monster pig, *Thoracopagus discymmetros*: V. 39, p. 251–255, fig. 1–4, 1938.
7. Cooperation among Kansas scientists: V. 40, p. 208–210, 1938.
8. The preparation of drawings and photographs from reproduction in the "Transactions": V. 41, p. 395–397, 1938.
9. (and Witherspoon, Ward) Spermatid transformation in *Anasa tristis* (De Geer): V. 40, p. 327–339, fig. 1–53, plates 1–2, 1938.

Baxter, Robert W.

1. Coal balls—new discoveries in plant petrifactions from Kansas coal beds: V. 54, no. 4, p. 526–635, plates 1–4, fig. 1–12, 1951.
2. The Coal Age flora of Kansas 1. *Microspermopteris aphyllum* var. *Kansensis*, var. nov.: V. 55, no. 1, p. 101–103, fig. 1, 1952.
3. (and Roth, Elmer A.): The Coal Age flora of Kansas IV. *Calamopitys kansanum*, a new species from the Pennsylvanian of Kansas: V. 56, no. 2, p. 220–226, plate 1–2, fig. 1–7, 1953.
4. (and Roth, Elmer A.) *Cardiocarpus magnicellularis* sp. nov., a preliminary report: V. 57, no. 4, p. 458–460, fig. 1–3, 1954.
5. The University of Kansas collection of fossil plants I. The Dakota Sandstone flora: V. 57, no. 1, p. 41–47, fig. 1–3, 1954.
6. The sporangium of *Cystoporites varius*: V. 62, no. 1, p. 47–52, plate I, II, 1959.

Bayles, Ernest E.

A factor unemphasized in current theories regarding the transfer of training: V. 39, p. 211–214, 1937.

Beach, Edith

1. The spermatogenesis of the meadow vole, *Microtus pennsylvanicus*: V. 34, p. 125–131, fig. 1–30, plates 1–2, 1931.
2. Effects of X-ray upon the snowy tree cricket, *Oecanthus nigricornis argentinus*: V. 41, p. 303–316, fig. 1, plates 1–3, fig. 1–51, 1938.

Beahm, Edgar H.

See: Leonard, A. B. 3.

Beal, Jack

1. Determination of quercetin-like substances in several mid-western plants: V. 52, no. 2, p. 209–218, tables I–III, graphs 1–3, 1949.
2. (Wenzel, Duane G.) Osage orange oil: V. 54, no. 1, p. 94–98, table 1, 1951.

Beath, O. A.

The composition and properties of the yucca plant: V. 27, p. 102–104, 1915.

Bee, James

(and Hall, E. Raymond) An instance of coyote-dog hybridization: V. 54, no. 1, p. 73–77, table 1, fig. 1–4, 1951.

Beede, J. W.

1. The McPherson Equus beds: V. 15, p. 104–110, plates 2, 3, 6, 1898.
2. Notes on Kansas physiography: V. 15, p. 114–120, plates 7–8, 1898.
3. The stratigraphy of Shawnee County: V. 15, p. 27–34, 1898.
4. On the correlation of the Coal Measures of Kansas and Nebraska: V. 16, p. 70–84, 1899.
5. Fauna of the Permian of the Central United States, Part I: V. 17, p. 185–189, plate 13, fig. 1–6, plate 14, fig. 1–2, 1901.
6. Formations of the Marion Stage of the Kansas Permian: V. 22, p. 248–256, fig. 1–2 unnumbered, 1909.
7. The Wamego anticline: V. 29, p. 141, 1920.

Bell, Rondal E.

See: Thomas, Olive E. 1.

Bennett, Betty

An analysis of the intrinsic factors that constitute a stable attitude: V. 43, p. 329–331, 1940.

Bennett, John

See: Haworth, Erasmus 5.

Bentley, J. R.
Native lespedezas in Kansas: V. 36, p. 78–81, map 1, 1933.

Bergstresser, Karl S.
Semimicro qualitative analysis: V. 43, p. 209–210, table 1, 1940.

Bernstein, Jerrold G.
A preliminary study of some reserpine analogs on the Siamese fighting fish: V. 63, no. 4, p. 264–268, 1960.

Bidwell, O. W.
Agricultural contributions to the industrial growth and development of Kansas: V. 65, no. 1, p. 30–32, 1962.

Bidwell, W. D.
The human eye: The changes which occur in middle life: V. 11, p. 101–103, 1889.

Bingham, Hal G.
See: Roofe, Paul G. 1.

Birkby, Walter H.
See: Bass, William M.

Birrer, Ivan J.
Prediction of college achievement of mature students: V. 57, no. 4, p. 513–516, table 1, 1954.

Blachly, C. P.
Ornithology of Riley County, Kansas: V. 7, p. 102–111, 1881.

Blair, Byron O.
1. The ecology of a pasture in the Dakota Sandstone Formation in Ellsworth County, Kansas: V. 52, no. 1, p. 38–57, tables I–VIII, fig. 1–9, 1949.
2. (and Albertson, Fred W.; and Choguill, Harold S.) A study of spotted and fallowed wheat field in west-central Kansas: V. 52, no. 1, p. 18–23, tables I–III, 1949.
3. (and Choguill, Harold S.) Comparison of methods for determination of soil calcium: V. 53, no. 1, p. 23–27, fig. 1–4, 1950.

Blair, F. I.
See: Havenhill, L. D. 6.

Blake, Lucien I.
1. The evaporative power of Kansas coals: V. 11, p. 42–47, tables A–F, 1889.
2. (and Franklin, W. S.) In regard to color-blindness among Indians: V. 11, p. 105–106, 1889.
3. (and Radcliffe, H.) The insulation resistance of some electric-light wires: V. 12, p. 44–45, 1890.
4. An electrical hygrometer: V. 12, p. 67, 1890.

Bloomer, Richard H.
(and Tegeler, Charles H., and Osborne, George) Intracomparisions of children's expressed fears, nightmares, and projective responses: V. 59, no. 2, p. 257–264, table 1, 1956.

Bogart, Ralph
(and Long, Sam) Elimination of fat for potash clearing: V. 39, p. 257–261, fig. 1–8, 1937.

Bohlke, J.

1. The biogenetic law for the systematic biologist: V. 52, no. 4, p. 487–488, 1949.
2. A new Pacific saury (Genus *Cololabis*) from off the Coast of Peru: V. 54, no. 1, p. 83–87, 1951.
3. Description of a new finless ophichthid eel from the Gulf of California: V. 56, no. 3, p. 325–329, fig. 1, 1953.
4. Studies on fishes of the family Characidae—No. 8. The description of a new *Hemigrammus* from the Rio Negro of Brazil: V. 58, no. 2, p. 229–236, fig. 1–3, 1955.

Boles, H. P.

See: Grundmann, A. W. 1.

Bond, Glenn C.

(and Downs, Cora M.) Antigenic studies on the genus *Pasteurella*: V. 38, p. 87–92, 1935.

Bonner, Oscar D.

See: Argersinger, W. J., Jr. 3.

Boughton, Lloyd L.

Croton Capitatus as a poisonous forage plant: V. 34, p. 114, 1931.

Bowen, Richard E.

(and McMahon, K. J., and Mitchell, Ralph W.) Infectious diseases in a black-tailed jack rabbit (*Lepus californicus melanotis*, Mearns) population in southwestern Kansas: V. 63, no. 4, p. 276–284, 1960.

Bower, R. K.

(and Eisenstark, A.) The effects of certain chemical agents upon Newcastle disease virus with special reference to the action of Urethane: V. 57, no. 3, p. 291–297, tables 1–4, 1954.

Bowers, Roy A.

Research in waxes: V. 47, no. 3, p. 349–354, tables I–VI, fig. 1–2, 1945.

Bowles, J. W., Jr.

See: Pronko, N. H. 2.

Boyce, Earnest

A study of oil-well brine disposal: V. 38, p. 131–138, 1935.

Boyce, S. R.

Iodoform: V. 12, p. 58–59, 1890.

Boyd, Ivan L.

1. Evaluation of species of prairie grasses as interplanting ground covers on eroded soils: V. 45, p. 55–58, tables I–IV, 1942.
2. Germination tests on four species of sumac: V. 46, p. 85–86, table 1, 1943.
3. An ecological study of four species of sumac in relation to development and growth on eroded soil: V. 47, no. 1, p. 51–59, tables 1–3, fig. 1–7, 1944.
4. See: Miller, R. F. 5.

Bozemen, Wilfred B., Jr.

An experimental investigation into the life history of *Blatticola blattae*, a nematode found in *Blatella germanica*: V. 45, p. 304–310, unnumbered fig. A, B, C, A′, B′, C′, D′, E′, F′, 1942.

Brady, William C.

Reclamation in the Kansas Basin: V. 50, no. 2, p. 115–119, 1 table unnumbered, 1 map unnumbered, 1947.

Branch, Hazel E.

1. A new record relative to the parasites of *Pholus achemon*, Drury: V. 31, p. 100, 1927.
2. Notes on the Chironomidae of Kansas: V. 31, p. 48, 1928.
3. The aims and opportunities of the Junior Academy in Kansas: V. 34, p. 27–32, 1931.
4. Effects of alcohol on the reproductive powers of rats (Albino): V. 34, p. 311–313, 1931.
5. Identification of chironomid egg masses: V. 34, p. 151–157, plate 1, fig. 1–9; plate 2, fig. 1–4; plate 3, fig. 1–15, 1931.
6. (and Moss, W. Glenn) Effects of nicotine on rats (Albino): V. 41, p. 317–329, tables 1–5, 1938.

Brande, Berney Lou

(Colburn, Richard, and Herrick, E. H.) Vitamin C and estrogen in adrenalectomized guinea pigs: V. 59, no. 3, p. 343–345, 1956.

Brandhorst, C. T.

A study of the relationship between certain insects and some native western Kansas forbs and weedy plants: V. 46, p. 164–175, plate 1–4, fig. 1–15, 1943.

Branson, Branley A.

1. Observation on the distribution of nuptial tubercles in some catostomid fishes: V. 64, no. 4, p. 360–372, fig. 1–8, 1961.
2. The slugs (Gastropoda: Pulmonata) of Oklahoma and Kansas with new records: V. 65, no. 2, p. 110–119, 1962.

Branson, Dorothy S.

See: Ackert, J. E. 5.

Branson, Farrel A.

A preliminary report on the insect orders found in various grassland habitats in the vicinity of Hays, Kansas: V. 45, p. 189–194, fig. 1–5, 1942.

Branson, Jack

See: Byrne, Frank 3.

Branson, Lester R.

An analysis of seed production of native Kansas grasses during the drought of 1939: V. 44, p. 116–127, tables 1–7, fig. 1–4, 1941.

Bray, Robert W.

(and Vail, Gladys E., and Mackintosh, D. L.) Influence of freezing on tenderness in "aged" beef: V. 44, p. 327–331, fig. 1–3, table 1, 1941.

Brecheisen, William R.

(and Legler, John M.) The harvest mouse, *Reithrodontomys montanus griseus*, from southeastern Kansas: V. 60, no. 1, p. 90–91, 1957.

Breck, Terrance John

Differential mineral absorption caused by gibberellic acid: V. 64, no. 3, p. 273–274, 1961.

Breese, C. M.

1. Statistics on color blindness among the students at the State Agricultural College: V. 11, p. 106–107, 1889.
2. Annual precipitation of rain and snow at Manhattan, Kansas, for the past thirty-two years: V. 12, p. 166–167, 1890.
3. Wind velocity at Manhattan, Kansas: V. 12, p. 167–168, 1890.
4. See: Failyer, G. H.

Brennan, L. A.

1. (and Darland, Raymond; and Lee, Floyd M.; and Barton, A. W.) Plant sap and juice—II. Data obtained in the spring of 1933: V. 36, p. 76–77, plate 1, 1933.
2. A check list of the amphibians and reptiles of Ellis County, Kansas: V. 40, p. 341–348, table 1, 1938.

Brennan, Margaret

Experimental application of hypnosis: V. 46, p. 192–197, 1943.

Breukelman, John

1. (and Sarracino, John) Speed of toxic action of mercuric chloride on *Daphnia pulex*: V. 35, p. 78–79, 1932.
2. (and Downs, Allen) A list of amphibia and reptiles of Chase and Lyon counties, Kansas: V. 39, p. 267–268, 1937.
3. Speed of toxic action of different concentrations of phenol on *Simocephalus*: V. 39, p. 263–266, fig. 1–2, 1937.
4. A collection of Kansas fishes in the State University museum: V. 43, p. 377–384, map 1 unnumbered, chart 1 unnumbered, 1940.
5. The fishes of northwestern Kansas: V. 43, p. 367–375, map 1 unnumbered, 1940.
6. Relation of zoology to the war effort: V. 46, p. 294–297, 1943.
7. A review of Kansas ichthyology: V. 49, no. 1, p. 51–70, 1 unnumbered map, 1946.
8. (and Clarke, Robert F.) A revised list of amphibia and reptiles of Chase and Lyon counties, Kansas: V. 54, no. 4, p. 542–545, 1951.
9. (and Andrews, T. F.; and Novak, J. D.) A study of problems involved in teaching large classes in college general biology: V. 62, no. 4, p. 245–251, fig. 1–2, tables 1–4, 1959.
10. The science teacher improvement program of the Kansas Academy of Science: V. 63, Supplement, p. 1–60, tables 1–6, 1960.
11. (and Frazier, Ralph P.) The science teacher improvement program of the Kansas Academy of Science (Second report): V. 64, no. 3, p. 237–257, tables 1–3, 1961.
12. (and Frazier, Ralph P.) The science teacher improvement program of the Kansas Academy of Science (Third report): V. 65, no. 2, p. 154–177, tables 1–2, 1962.
13. See: Andrews, Ted F. 1.
14. See: Downs, Theodore 1.
15. See: Clarke, Robert F. 4.

Brewster, R. Q.

1. A note on the reducing action of anhydrous hydrogen iodide: V. 36, p. 111, 1933.
2. (and Floyd, W. W.) The electronegativity of organic radicals: V. 38, p. 139–144, tables 1–4, 1935.
3. (and Horner, Sister Agnes Marie) The use of xenyl mustard oil as a reagent for amines: V. 40, p. 101–102, 1938.
4. See: Burket, Stanley C. 1.
5. See: Dashen, Ludwig 1.
6. See: Johnson, Sam H. 1.
7. See: White, Leland M. 1.

Bridwell, Arthur

1. The brachiopos genus *Enteletes* with a description of a new species: V. 42, p. 329–335, 24 unnumbered fig., unnumbered plate, unnumbered table, 1939.
2. Fossiliferous phosphatic nodules of the Haskell limestone horizon: V. 46, p. 176–178, fig. 1–2, 1943.
3. See: Schoewe, W. H. 13.

Bridwell, J. C.
A list of Kansas Hymenoptera: V. 16, p. 203–211, 1899.

Brigden, Robert L.
1. Goal activity in the white rat: V. 34, p. 239, 1931.
2. A preliminary study of the relative efficiency of pattern repetition vs. motor repetition, in the memorization of music: V. 39, p. 215–218, 1937.
3. Maladjustment to responsibility: V. 41, p. 245–247, 1938.
4. Psychological service in Kansas children's institutions: V. 43, p. 333–335, 1940.
5. The reduction of emotional tension in psychotherapy: V. 44, p. 339–342, 1941.

Briggs, Leslie
The Thurstone Vocational Interest Schedule and students actual vocational choices: V. 45, p. 272–273, tables I–III, 1942.

Brill, Alice K.
Growth and reproduction of rats on a vitamin C-free diet: V. 36, p. 153–155, fig. 1, 1933.

Bronson, Franklin H.
1. Notes on body size of black-tailed jackrabbits: V. 61, no. 1, p. 109, 1958.
2. (and Tiemeier, Otto W.) Notes on crop damage by jackrabbits: V. 61, no. 2, p. 226–229, 1958.

Brooks, Travis E.
1. Some unrecorded hosts of *Comandra pallida*, a hemiparasite: V. 40, p. 65–66, fig. 1 unnumbered, 1938.
2. Myxomycetes of Kansas: V. 44, p. 130–157, 1941.
3. Myxomycetes of Kansas—II Stemonitales: V. 45, p. 59–70, 1942.
4. See: Johnstone, C. O. 4.
5. See: Paslay, Lucille A. 1.

Brous, H. A.
1. Habits of *Amblychila cylindriformis*: V. 5, p. 12, 1877.
2. Habits of the prairie dogs: V. 5, p. 10–12, 1877.

Brown, Harold P.
1. Two Beta arsenical derivatives of naphthalene: V. 42, p. 209–211, 1939.
2. Periodic tables: V. 43, p. 211–212, 1940.

Brown, H. Ray
Growth and seed yields of native prairie plants in various habitats of the mixed-prairie: V. 46, p. 87–99, tables 1–9, 1943.

Brown, Jerry Wm.
See: Latimer, Homer B. 1.

Brown, Leo
1. The distribution of the whitetailed jackrabbit (*Lepus townsendii campanius Hollister*) in Kansas: V. 43, p. 385–389, fig. 1, 1940.
2. The management of farm wildlife: V. 44, p. 381–388, 1941.
3. Propagation of the spotted channel catfish (*Ictalurus lacustrus punctatus*): V. 45, p. 311–314, 1942.
4. Rodent activity in a mixed prairie near Hays, Kansas: V. 48, no. 4, pp. 448–456, tables 1–3, 1946.
5. Why has the white-tailed jackrabbit (*Lepus townsendii campanius* Hollister) become scarce in Kansas: V. 49, no. 4, p. 455–456, 1947.
6. Coaction of jackrabbit, cottontail, and vegetation in a mixed prairie: V. 50, p. 28–44, tables 1–6, fig. 1–11, 1947.
7. Censusing wildlife: V. 50, no. 3, p. 322–326, 1947.
8. Caucasian bluestem (*Andropogon intermedius* var. *cascasicus*): V. 56, no. 1, p. 46–52, fig. 1–4, 1953.

Brown, R. J.

Is a geological survey of the state a necessity?: V. 9, p. 49–56, 1885.

Brown, William

See: Ekstein, Rudolf 3.

Brownlee, William E.

(and Vanderwerf, Calvin A.) The alkylation of cyclohexanone: V. 47, no. 3, p. 361–366, 1945.

Brubaker, H. W.

1. A study of the oil from sumac (*Rhus glabra*): V. 39, p. 221–222, tables 1–3, 1922.
2. A preliminary report on a survey of the waters of Kansas to determine their iodine content: V. 32, p. 60–62, 1929.
3. Analyses of fragments from the tusks of four specimens of extinct elephants found in Kansas: V. 37, p. 115–116, tables 1–2, 1934.
4. The economy of water softening: V. 41, p. 167–170, 1938.

Bruckmiller, F. W.

The determination of sulfates in water: V. 27, p. 97–98, 1915.

Brumwell, Malcolm J.

1. Variation in the snake, *Thamnophis macrostemma* Kennicott: V. 42, p. 423–429, tables I–III, plate I, 1939.
2. Notes on the courtship of the turtle, *Terrapene ornata*: V. 43, p. 391–392, 1940.

Bryson, Harry R.

The identification of soil insects by their burrow characteristics: V. 42, p. 245–253, fig. 1–9, table I, 1939.

Buechner, Helmut K.

Birds of Kerr County, Texas: V. 49, no. 3, p. 357–364, table 1, fig. 1, 1946.

Bugbee, Robert E.

1. An analysis of local populations in the continental species, *E. rhois*: V. 44, p. 228–233, chart 1, 1941.
2. Notes on animal occurrence and activity in the White Sands National Monument, New Mexico: V. 45, p. 315–321, map 1, graph 1, fig. 1, 1942.
3. A note on the mortality of snakes on highways in western Kansas: V. 47, no. 3, p. 373–374, table 1, 1945.
4. (and Riegel, Andrew) Seasonal food choices of the fox squirrel in western Kansas: V. 48, no. 2, p. 199–203, fig. I–IV, 1945.

Bull, H. R.

Notes on tea analysis: V. 9, p. 42–43, 1885.

Burchalter, J. H.

Modern antimalarial drugs: V. 53, no. 4, p. 433–440, 1950.

Burgat, Virgil

See: Chelikowsy, J. R. 1.

Berger, W. Leslie

See: Smith, Philip W. 1.

Burgert, Irma A.

A study of some factors influencing germination of spores of *Phyllosticta solitaria*: V. 36, p. 82, 1933.

Burgstahler, Albert W.

(and Nordin, Ivan C.) Angular alkylation by the Claisen rearrangement: V. 65, no. 1, p. 39–43, 1962.

Burket, Stanley C.

(and Brewster, Ray Q.) The reaction of phenols with tertiary butyl chloride: V. 46, p. 133–135, 1943.

Burkhard, R. K.

Another method for the determination of ionization constants of dyes: V. 60, no. 3, p. 324–326, fig. 1, table 1, 1957.

Burner, Charles C.

(and Leist, Claude) A limnological study of the college farm stripmine lake: V. 56, no. 1, p. 78–85, fig. 1–2, 1953.

Burrage, Bryan R.

Notes on some captive minnows, *Pimephales promelas* Rafinesque: V. 64, no. 4, p. 357–359, 1961.

Burress, Ralph M.

See: Gier, L. J. 3.

Burt, Charles E.

1. Some distributional and ecological records of Kansas reptiles: V. 36, p. 186–208, 1933.
2. (and Hoyle, William Luther) Additional records of the reptiles of the central prairie region of the United States: V. 37, p. 193–216, 1934.
3. A key to the lizards of the United States and Canada: V. 38, p. 255–305, fig. 1–71, 1935.
4. The fauna: Amphibians and reptiles of "Rock City": V. 40, p. 195, 1938.
5. The lizards of the southeastern United States: V. 40, p. 336–349, 1938.
6. The frog and toads of the southeastern United States: V. 41, p. 331–367, fig. 1–14, 1938.
7. A mutant red-phase wood salamander (*Plethodon cinereus*) from New Hampshire: V. 48, no. 2, p. 204, 1945.
8. A report on some amphibians and reptiles from Louisiana: V. 48, no. 4, p. 422–428, 1946.

Burt, Lucile B.

The bearing of Zalenski's law on conifer leaves: V. 42, p. 113–121, plates I–III, fig. 1–24, tables I–III, 1939.

Bush, Vannevar

Science—the endless frontier: V. 48, no. 3, p. 231–264, 1 unnumbered diagram, 1945.

Bushnell, Leland D.

1. Micro-organisms and the struggle for existence: V. 48, no. 1, p. 55–69, 1945.
2. (and Erwin, L. E.) Studies on Newcastle disease—II. The distribution of Newcastle disease virus antibodies in the tissues of recovered chickens: V. 52, no. 3, p. 370–372, table 1, 1949.
3. (and Erwin, L. E.) Studies on Newcastle disease—IV. The distribution of Newcastle disease virus in the tissues of chicks visibly sick of the disease: V. 52, no. 3, p. 373–374, table I, 1949.
4. (and Erwin, L. E.) Studies on Newcastle disease—IV. Hemagglutination inhibition for Newcastle disease virus by abnormal allantoic and amniotic fluids: V. 53, no. 1, p. 64–65, table 1, 1950.
5. (and Erwin, L. E.) Studies on Newcastle disease—V. Rate of increase of Newcastle disease virus in the allantoic sac of 10-day chicken and embryos: V. 53, no. 1, p. 66–67, plate 1, 1950.

6. (and Erwin, L. E.) Studies on Newcastle disease—VI: Thermostability of Newcastle disease virus and its antibody: V. 53, no. 1, p. 68–69, tables 1–2, 1950.
7. (and Erwin, L. E.) Studies on Newcastle disease—VII. The rate of virus absorption in the hemagglutination reaction of Newcastle disease virus: V. 53, no. 3, p. 378–380, fig. 1–2, 1950.
8. (and Erwin, L. E.) Studies on Newcastle disease—VIII. Reactivation of over neutralized Newcastle disease virus: V. 53, no. 3, p. 381–385, tables 1–5, 1950.
9. (and Erwin, L. E.) Studies on Newcastle disease—IX. Effect of Newcastle disease virus on the volume of chicken red blood cells: V. 53, no. 4, p. 488–490, 1 unnumbered table, 1950.
10. (and Erwin, L. E.) Studies on Newcastle disease—X. Effect of Newcastle disease virus on the fragility of chicken red blood cells: V. 53, no. 4, p. 491–493, 1 table, 1 unnumbered fig., 1950.
11. (and Erwin, L. E.) Studies on Newcastle disease—XI. Reduction of methylene blue by normal allantoic fluids and Newcastle disease viruses: V. 54, no. 1, p. 36–39, tables I–VI, 1951.
12. (and Erwin, L. E.) Studies on Newcastle disease—XII. The Danysz phenomenon in the neutralization of its antibody by Newcastle disease virus: V. 54, no. 1, p. 40–41, fig. 1, 1951.
13. See: Haas, H. F. 1.
14. See: Hunter, O. W. 1.
15. See: Liao, Y. S. 1.
16. See: Liao, Y. S. 2.

Bushong, F. W.

1. On the alkyl hypobromites—R-O-Br: V. 15, p. 81–82, 1898.
2. The deep well at Madison, Kansas: V. 16, p. 67–70, plate 5, 1899.
3. Analysis of magnesium water found near Madison, Kansas: V. 17, p. 53, 1901.
4. On the alkyl sulphates: V. 18, p. 62–67, 1903.
5. The action of ethyl chlorsulfonate upon aniline: V. 19, p. 71–73, 1905.
6. Composition of gas from cottonwood trees: V. 21, p. 53, 1908.
7. (and Weith, A. J.) Some fluctuations in the mineral content of the Kaw River: V. 22, p. 95, 1909.
8. The optical activity of petroleum and its significance: V. 25, p. 16–23, 1913.

Byrne, Frank

1. A preliminary report on a new mammal-like reptile from the Permian of South Africa: V. 40, p. 221–232, fig. 1–32, plates 1–3, 1938.
2. Notes on the evolution of the mammal-like reptiles: V. 43, p. 291–296, chart 1 unnumbered, 1940.
3. (and Branson, Jack) Permian organic burrows: V. 44, p. 257–263, fig. 1–6, 1941.
4. (and Seeberger, Evelyn) Fragmentary crinoids from the Lower Permian of the Manhattan area: V. 45, p. 221–228, plate 1, fig. 1–17, table 1, 1941.

Cady, H. D.

1. A note on the detection of cyanides: V. 20, p. 82–83, 1907.
2. (and McFarland, D. F.) Helium in Kansas natural gas: V. 20, p. 80–81, 1907.
3. Notes on mercurous sulfate for standard cells: V. 20, p. 84, 1907.
4. (and McFarland, D. F.) Neon and argon in natural gas: V. 21, p. 64–65, 1908.
5. Helium as a balloon gas: V. 30, p. 212–214, 1922.
6. See: Holmes, F. O. 1.

Calderwood, William A.

The metabolic rate of the flour beetle *Tribolium confusum*: V. 64, no. 2, p. 150–152, fig. 1, 1961.

Caldwell, J. M.

(and Weeks, Mary Elvira) Victoria Blue BX as internal indicator in ceriometry: V. 37, p. 117–118, 1934.

Caldwell, M. J.

1. (and Hall, J. L.; and King, H. H.) X-ray investigation of particle size in beef: V. 36, p. 113, fig. 1, 1933.
2. (and Parrish, D. B.; and Schrenk, W. G.) The response of different photometers to the color produced by vitamin A and carotene with antimony trichloride: V. 49, no. 2, p. 197–214, tables I–III, fig. 1, 1946.
3. See: Parrish, D. B. 1.

Call, L. E.

1. Food in the war effort: V. 46, p. 267–271, 1943.
2. The crop industries of Kansas: V. 47, no. 1, p. 1–6, 1944.

Campbell, Carol Lois

See: Barham, H. N. 2.

Campbell, Marion I.

Some observations on *Scolopendra heros* under laboratory conditions: V. 35, p. 80, 1932.

Caraiff, Ira D.

An aberrant walnut: V. 23, p. 128, 1909.

Carleton, M. A.

1. List of plants collected by the Garfield University Expedition of 1889: V. 13, p. 50–57, 1893.
2. Variations in dominant species of plants: V. 13, p. 24–28, 1893.
3. Characteristic sand-hill flora: V. 12, p. 32–34, 1890.
4. A new aecidium of peculiar habit: V. 14, p. 44, 1896.
5. Variations in dominant species of plants: V. 14, p. 45, 1896.
6. See: Kellerman, W. A. 3.

Carlson, William A.

(and Runnels, Russell T.) A study of silt deposited by the July, 1951, flood, central Kansas River Valley: V. 55, no. 2, p. 209–213, tables 1–4, 1952.

Carman, J. Neale

The replacement of the Indian languages of Kansas by English: V. 58, no. 2, p. 131–150, 1955.

Carpenter, A. C.

1. New mineral localities in Kansas: V. 44, p. 264, 1941.
2. Scientific hobbies: V. 58, no. 3, p. 303–309, 1955.

Carpenter, Charles R.

The black rot of the grape: V. 11, p. 14–17, 1889.

Carr, John H.

Inoculation time differentials for expression of interference of Newcastle disease virus by swine influenza virus in chick embryos: V. 63, no. 3, p. 141–146, fig. 1–2, 1960.

Carruth, J. H.

1. Catalogue of plants seen in Kansas: V. 1, p. 8–20, 1872.
2. Report on botany of Kansas for the year 1873: V. 2, p. 74–79, 1873.
3. Report on botany of Kansas for the year 1874: V. 3, p. 122–127, 1874.
4. Centennial catalogue of the plants of Kansas: V. 5, p. 40–59, 1877.
5. Botanical addenda: V. 6, p. 40–42, 1878.

6. Botanical addenda for 1879 and 1880: V. 7, p. 120–218, 1881.
7. Botanical addenda for 1881 and 1882: V. 8, p. 32–33, 1883.
8. Botanical addenda for 1883 and 1884: V. 9, p. 142–144, 1885.
9. Botanical notes, 1889: V. 12, p. 43–44, 1890.

Carter, F. L.

A study in jackrabbit shifts in range in western Kansas: V. 42, p. 431–435, charts 1–2, maps 4 unnumbered, 1939.

Case, Annette Alsop

See: Harman, Mary T. 16.

Case, Arthur A.

1. (and Ackert, J. E.) Intermediate hosts of chicken tapeworms occurring in Kansas: V. 42, p. 439–442, 1939.
2. (and Ackert, J. E.) New intermediate hosts of fowl cestodes: V. 43, p. 393–396, 1940.
3. The occurrence of the liver fluke, *Fasciola hepatica* in cattle from Rice County, Kansas: V. 56, no. 1, p. 108–110, 1953.
4. Nematodes from silos in Missouri: V. 58, no. 3, p. 347–352, fig. 1–3, 1955.
5. The invasion and destruction of subserosal tissues in the horse by migrating stages of *Strongyluss edentatus*: V. 60, no. 3, p. 297–300, fig. 1–3, 1957.
6. See: Ackert, J. E. 8.

Case, E. C.

1. On the analysis of the deposit from a chalybeate water: V. 14, p. 36–37, 1896.
2. See: Bailey, E. H. S. 17.

Case, Theo. S.

A holiday excursion to the birthplace of Montezuma: V. 7, p. 13–21, plate 1 unnumbered, 1881.

Cashon, Dorothy

See: Gates, Frank 1.

Castle, E. W.

A list of the flowering plants and ferns: V. 13, p. 80–89, 1893.

Castonguay, Thomas T.

1. (and Ferm, Richard L.) A study of the production of DDT: V. 49, no. 2, p. 167–176, tables I–VI, fig. 1–5, 1946.
2. (and Ferm, Richard L.) The effect of various condensing agents and inert solvents in the production of DDT: V. 49, no. 4, p. 433–435, tables 1–2, 1947.

Caulfield, W. J.

See: McCannon, Ruth B. 2.

Cauthen, Geo. E.

Occurrence of capillaria (Nematoda) in a colony of pigeons and methods of control: V. 40, p. 367, 1938.

Chapman, O. W.

1. Licensing chemists and chemical engineers: V. 50, no. 3, p. 338–341, 1947.
2. Statistical quality control in college analytical laboratories: V. 52, no. 2, p. 160–167, fig. 1–8, 1949.

Chase, George

Archaeological notes: V. 9, p. 30–31, fig. 1–2, 1885.

Charles, H. W.

Dakota sandstone in Washington County: V. 17, p. 194, 1901.

Charlton, O. C.
1. On the occurrence of mammoth remains in Franklin County, Kansas: V. 12, p. 74, 1890.
2. Preliminary observation on the destructive burrowing of shale: V. 12, p. 75, 1890.

Chelikowsky, J. R.
1. (and Burgat, Virgil) Structure and convergence of the formations in the Lansing group, Wilson County, Kansas: V. 50, no. 1, p. 89–96, fig. 1–3, 1947.
2. See: Harned, H. C. 1.

Chenoweth, W. L.
Records of amphibians and reptiles from New Mexico, Utah, and Arizona: V. 53, no. 4, p. 532–534, 1950.

Chitwood, Ida
(and Vail, Gladys) A study of the effects in frying potato chips in different ways: V. 36, p. 156, 1933.

Choguill, Charles L.
1. Gas chromatography: V. 61, no. 3, p. 253–255, 1958.
2. Paper electrophoresis: V. 62, no. 4, p. 232–236, 1959.

Choguill, Harold S.
1. The electrodeposition of some metals from solutions of their sulfamates: V. 42, p. 213–215, tables I–II, 1939.
2. (and Finch, Jack N.) The ionization constants of certain cyclohexane derivatives of aliphatic acids: V. 55, no. 3, p. 363–368, tables 1–2, fig. 1, 1952.
3. (and Sullivan, Harold E.) Condensation of ethyl acetoacetate with halogenated alcohols: V. 57, no. 1, p. 97–100, table 1, 1954.
4. (and Shell, Francis J.) Decomposition potentials of some metallic sulfamates: V. 57, no. 3, p. 386–390, fig. 1–5, tables 1–4, 1954.
5. (and Goetz, LaVern) Transference numbers of cadmium and copper sulfamates: V. 60, no. 1, p. 78–81, tables I–II, fig. 1, 1957.
6. Some poisonous plants of Kansas (presidential address, 1957). V. 61, no. 1, p. 1–13, 1958.
7. (and Dodd, J.) Paper chromatography of carbohydrate reserves: V. 62, no. 1, p. 58–61, 1959.
8. See: Blair, Byron O. 2.
9. See: Moring, Edmond A. 1.
10. See: Tombaugh, Robert M. 1.

Chou, David Y. P.
(and Davidson, Arthur W.) Phase equilibria in the system strontium chloride-acetic acid-water: V. 65, no. 4, p. 428–432, fig. 1–2, 1962.

Chrapliwy, P. S.
See: Williams, K. L. 2.

Christesen, Bernice
See: Herrick, E. H. 4.

Clark, Francis E.
1. Effects of soil amendments upon bacterial populations associated with roots of wheat: V. 42, p. 91–96, tables I–III, 1939.
2. Notes on types of bacteria associated with plant roots: V. 43, p. 75–83, tables 1–5, 1940.

Clark, John R.
Colors and sugar relationships in plants: V. 64, no. 3, p. 268–269, fig 1, 1961.

Clarke, Robert F.

1. Additional turtle records for Kansas: V. 56, no. 4, p. 438–439, 1953.
2. Distributional notes on some amphibians and reptiles of Kansas: V. 59, no. 2, p. 213–219, 1956.
3. (and Breukelman, John; and Andrews, T. F.) An annotated check list of the vertebrates of Lyon County, Kansas: V. 61, no. 2, p. 165–194, 1958.
4. See: Breukelman, John 8.

Clegg, Robert F.

See: Ericson, A. T. 1.

Clothier, R. W.

See: Willard, J. T. 12.

Cobden, Selma Edith

Studies on the retinal pigment of the embryo chick: V. 37, p. 217–224, fig. 1–14, plate 3, 1934.

Cockerell, T. D. A.

1. A first list of the hymenopterous families Tenthredinidae, Siricidae, Chrysididae, Proctotrypidae, Cynipidae, Chalcididae, and Braconidae collected in New Mexico: V. 16, p. 212–216, 1899.
2. The Diptera of Kansas and New Mexico: V. 19, p. 250–251, 1905.
3. Notes upon variation of *Melissodes lupina* Cresson: V. 22, p. 305, 1909.
4. The Colorado Desert of California—its origin and biota: V. 48, no. 1, p. 1–39, 13 unnumbered photographs, 1 unnumbered map, 1945.

Cockrum, E. Lendell

1. The distribution of the hispid cotton rat in Kansas: V. 51, no. 3, p. 306–312, fig. 1–3, 1948.
2. Reproduction in North American bats: V. 58, no. 4, p. 487–511, 1955.

Coco, Russell M.

See: Johnson, George E. 3.

Cohoe, Edith

See: Dutro, Ruth 1.

Collette, A. M.

1. Nesting of the pied-billed grebe: V. 13, p. 49–50, 1893.
2. Two rare birds of Kansas, the white-faced glossy ibis (*Plegadis guarauna*) and the Clarke's nutcracker (*Picicoruus columbianus*): V. 13, p. 29–30, 1893.

Collister, E. Gordon

(and Ahlstrom, Winton) Reliability of test scores for diagnosis: V. 59, no. 3, p. 385–389, 1956.

Comer, Ralph D.

1. (and Roofe, Paul G.) The effects of intraperitoneally injected radium chloride on the thymus of the albino rat: V. 56, no. 2, p. 234–241, fig. 1–4, tables 1–2, 1953.
2. See: Roofe, Paul G. 1.

Congdon, Leon A.

1. A study of the gelatinizing agents, pasty materials and thickners used in food products: V. 27, p. 81–86, 1915.
2. The high cost of food: V. 28, p. 313–318, 1918.
3. A study of foods for infants: V. 29, p. 209–216, tables 1–6, 1920. See also special publications.

Conkin, James

1. Relations of the Liberty-Saluda, Whitewater beds in Oldham, Kentucky: V. 55, no. 1, p. 126–130, fig. 1–3, 1952.
2. (and Conkin, Barbara) Cyathaxonia from the Fern Glen Formation: V. 57, no. 2, p. 214–217, fig. 1, 1954.

Connin, R. V.

See: Sill, W. H., Jr. 2.

Cook, Philip H.

Evacuation problems in Britain: V. 44, p. 243–345, 1941.

Cook, W. A.

1. Lowering of the ground-water table: V. 26, p. 84–86, 1914.
2. Phenomena beautiful: V. 26, p. 97–100, 1914.

Coonfield, B. R.

1. The peripheral nervous system of the earthworm: V. 34, p. 115, 1931.
2. Development and reaction of melanophores of embryos and larvae of *Typhlogobius californiensis* Steindachner: V. 45, p. 322–333, plate I, fig. 1–10; plate II, fig. 11–19; plate III, fig. 20–25, 1942.

Cooper, J. C.

1. Oxygen in its relation to mineralogy: V. 19, p. 33–38, 1905.
2. The study of mineralogy for self-culture: V. 20, p. 253–259, 1906.

Copeland, B. J.

See: Minter, Kenneth W.

Copley, John T.

The movements and forces in tornadoes: V. 38, p. 213–216, 1935.

Coppedge, R. W.

Effect of light on *Melilotus alba* (sweet clover): V. 20, p. 97–105, 1906.

Cornelius, Donald R.

(and Melcher, Newell C.) Estimating the yield of blue grama grass seed: V. 45, p. 71–74, fig. 1, table 1, 1942.

Corp, Charles I.

1. An interpretation of indicator diagrams: V. 20, p. 239–244, 1906.
2. Discussion of a Pelton Water-wheel test made at the University of Wisconsin: V. 22, p. 84–88, 1909.

Cortner, G. L.

See: Jones, J. Knox, Jr. 8.

Cottle, Wm. C.

1. (and Powell, Jackson O.) Relationship of mean scores on the Strong, Kuder and Bell inventories with the MMPI M-F scale as a criterion: V. 52, no. 3, p. 396–398, tables I–II, 1949.
2. Supervising practicum courses in counseling: V. 55, no. 4, p. 468–471, 1952.
3. (and Wands, Herbert O.; Pownall, J. F.; and Barker, David P.) A scale to differentiate counselors from teachers: V. 57, no. 4, p. 509–512, 1954.

Cowan, Edwina A.

1. The birth injured child as a training problem: V. 35, p. 131, 1932.
2. The experimental training of a birth injured child: V. 39, p. 219–221, 1937.
3. The phenomenon of mother fixation as an expression of the child's doubt of the parent's affection: V. 41, p. 249–252, 1938.

4. A study of children exhibiting pattern loss during performance of a mental test: V. 42, p. 389–391, table 1, 1939.
5. Mutual participation in adjustment techniques as a factor in problems involving present human relationships: V. 45, p. 274–278, 1942.

Cowgill, E. B.

Observation of the formation of sugar crystals in the juice of sorghum saccharatum: V. 10, p. 26–27, 1887.

Cragin, F. W.

1. A preliminary catalogue of Kansas reptiles and batrachians: V. 7, p. 112–120, 1881.
2. A contribution to the history of the freshwater Copepoda: V. 8, p. 66–81, plate 1, fig. 1–23; plate 2, fig. 1–15; plate 3, fig. 1–23; plate 4, fig. 1–17, 1883.
3. Second contribution to the herpetology of Kansas with observations on the Kansas fauna: V. 9, p. 136–140.
4. Preliminary note on the origin and maturation of the ovum in porcellio: V. 9, p. 140–142, 1885.
5. Note on a new variety of a Sonoran serpent from Kansas: V. 10, p. 85–86, 1887.
6. Library of the Kansas Academy of Science catalogue: V. 10, p. 145–154, 1887.

Crain, Frank T.

(and Gottlieb, Selma) A study of the mechanism of the effect of chlorine on the biochemical oxygen demand: V. 38, p. 145–148, tables 1–2, 1935.

Cram, S. Winston

See: Gladfelter, Robert D. 1.

Creditor, Margaret

Compensatory hypertrophy of the kidney: V. 64, no. 2, p. 155–157, 1961.

Cressler, Lawrence

The effect of different intensities and times of grazing and the degree of dusting upon the vegetation of range land in west central Kansas: V. 45, p. 75–91, fig. 1–17, tables I–VII, 1942.

Crevecoeur, F. F.

1. List of fossil plants collected in the vicinity of Onaga, Kansas: V. 18, p. 124–128, fig. 1–3, plate 1 unnumbered, 1903.
2. A new species of fish: V. 18, p. 177–178, 1903.
3. Additions to the list of the hemipterous fauna of Kansas: V. 19, p. 232–237, 1905.
4. Some variations among Kansas wild flowers: V. 19, p. 205–208, plate 26, 1905.
5. A new species of Campostoma: V. 21, p. 155–157, 1908.
6. Additions to the list of Kansas Diptera: V. 20, p. 90–96, 1906.
7. Additions to the list of Kansas Hymenoptera: V. 30, p. 385–388, 1922.
8. Additions to the list of Kansas Lepidoptera: V. 30, p. 377–385, 1922.
9. A new nesting record for the pine siskin: V. 30, p. 376, 1922.

Croissant, DeWitt C.

University extension: V. 26, p. 104–106, 1914.

Croley, Hugh T.

1. See: Lichlyter, Dean E. 1.
2. A method of analyzing group psychotherapy: V. 59, no. 2, p. 249–256, 1956.

Cross, Frank B.

1. Occurrence of the sturgeon chub, *Hybopsis gelida* (Girard) in Kansas: V. 56, no. 1, p. 90–91, 1953.
2. Nomenclature in the Pimephalinae, with special reference to the bullhead minnow, *Pimephales vigilax perspicuus* (Girard): V. 56, no. 1, p. 92–96, 1953.
3. Fishes of Cedar Creek and the south fork of the Cottonwood River, Chase County, Kansas: V. 57, no. 3, p. 303–314, 1954.
4. Records of fishes little known in Kansas: V. 57, p. 473–479, 1954.
5. (and Hastings, Claude E.) Ages and sizes of 29 flathead catfish from the Kansas River, Douglas County, Kansas: V. 59, no. 1, p. 85–86, 1956.
6. New records of four fishes from Kansas: V. 61, no. 1, p. 104–108, 1958.
7. (and Deacon, J. E.; and Ward, C. M.) Growth of sport fish in Kansas lakes: V. 62, no. 2, p. 162–164, table 1, 1959.
8. See: Minckley, W. L. 3.

Cross, Frank C.

Nesting birds of north-central Kansas: V. 55, no. 1, p. 120–125, 1952.

Crotty, Gertrude

1. Methods of collecting, cleaning, and mounting diatoms: V. 12, p. 81–83, 1890.
2. Some statistics relating to health of college women: V. 13, p. 33–37, 1893.

Crow, H. E.

(and Swanson, Harold) Disappearance of ox warbles (*Hypoderma lineatum*) from a herd of cattle: V. 53, no. 4, p. 529–531, 1950.

Crown, Gary

See: Mallory, Bob F.

Cruise, Lawrence L.

The straited spark: V. 33, p. 84–86, fig. 1, 1930.

Crum, L. A.

(and Gottlieb, Selma) Studies on two Kansas oil wells, mineralogy of the formations and chemical nature of the water encountered: V. 38, p. 149–152, tables 1–2, 1935.

Crumb, S. E.

1. The Jassoidea of Kansas: V. 24, p. 232–238, 1910.
2. A partial key to the genera of North American Jassoidea: V. 25, p. 129–137, plate 1, fig. 1–11; plate 2, fig. 1–13, 1913.

Crumbine, S. J.

The pollution of underground waters: V. 23, p. 169–176, 1909.

Curtis, Geo. E.

1. Who sold his wheat for $1.40?, or an examination of the values of Blake's tables: V. 12, p. 37–42, 1890.
2. Some Diatomaceae of Kansas: V. 17, p. 67–78, fig. 1–29, 1901.

Curtis, R. W.

(and McReynolds, S. A.) The quantitative estimation of iron and cobalt by the rotating cathode: V. 20, Part II, p. 67–69, tables 1–3, 1907.

Dains, F. B.

1. On the composition of a natural oil from Wilson County, Kansas: V. 14, p. 38–39, 1896.
2. On some ferrocyanides of calcium, barium and magnesium: V. 20, p. 86–87, 1907.

3. Silliman, Hare, and Cooke, and their relation to American science: V. 23, p. 22–33, 1909.
4. (and Griffin, E. L.) On the reactions of the formamidines: V. 25, p. 35–36, 1913.
5. (and Lehmann, Glenn A.) The action of bromine and iodine monochloride on some schiff's bases: V. 34, p. 297–302, 1931.
6. (and Werner, Henry) Triazin desulfurization products of phenyl benzamidine thiourea: V. 35, p. 149–157, 1932.
7. (and Eberly, Floyd) On the preparation of P-iodophenol and some of its derivatives: V. 36, p. 114–117, 1933.
8. See: Long, Walter S.

Dalquest, Walter W.

1. (and Hall, E. Raymond) Geographic range of the hairy-legged vampire in eastern Mexico: V. 50, no. 3, p. 315–317, fig. 1, 1947.
2. (and Hoffmeister, Donald F.) Mountain sheep from the state of Washington in the collection of the University of Kansas: V. 51, no. 2, p. 224–234, tables 1–2, fig. 1 with 6 fig., fig. 2, 1948.
3. Netting bats in tropical Mexico: V. 57, no. 1, p. 1–10, 1954.
4. A human skull and an associated fauna from Foard County, Texas: V. 65, no. 1, p. 76–79, 1962.

Dalton, B. J.

1. (and Marvin, F. O.) Notes on the second setting of cement: V. 12, p. 10, 1890.
2. Railroad rates from an engineering standpoint: V. 22, p. 355–362, plates I–III, 1909.

Danheim, Bertha L.

Studies on the occurrence and development of *Ascaridia perspicillum*, parasitic in chickens: V. 30, p. 204, 1922.

Daniel, Charles M.

(and Worth, A. Fletcher) The preparation of some new Azo derivatives of guaiacol I: V. 37, p. 119–122, tables 1–2, 1934.

Darland, Raymond

See: Brennan, L. A.

Darling, Donald M.

(and Smith, Hobart M.) A collection of reptiles and amphibians from eastern Mexico: V. 57, no. 2, p. 180–195, plate 1, fig. 1–2; plate 2, fig. 1–2; 1954.

Dashen, Ludwig

(and Brewster, R. Q.) The action of ethylene dibromide upon disubstituted thioureas: V. 40, p. 103–108, tables 1–2, 1938.

Daubenmire, R.

See: Shantz, H. L.

Davidson, Arthur W.

1. Analogue of the cupric-ammonia ion in acetic acid solution: V. 31, p. 60, 1927.
2. Net work and free energy decrement in non-isobaric and spontaneous changes: V. 60, no. 4, p. 441–447, 1957.
3. See: Adams, Myrl R. 1.
4. See: Martin, James B. 1.
5. See: Chou, D. Y. P.

Davidson, W. J.

See: Argersinger, W. J., Jr. 3.

Davies, H. E.
Kansas mineral water: V. 15, p. 82–88, 1898.

Davis, John C.
See: Fishburn, M. D.

Davis, Kendall
See: Hulicka, Irene Mackintosh.

Davis, Philip Bruce
The fossil beds of northwestern Nebraska as observed on the McPherson College 1937 Summer biology trek: V. 41, p. 199–211, 1938.

Davis, Vera
A study of the relationship between high school marks and college success as measured by college marks and entrance examinations: V. 39, p. 223–226, 1937.

Dawson, Eugene E.
The religious implications of Jung's psychology: V. 52, no. 1, p. 89–91, 1949.

Deacon, James E.
1. See: Minckley, W. L. 2.
2. See: Cross, F. B. 7.

Dean, George A.
1. The mound-building prairie ant: V. 19, p. 164–170, plate 20, fig. 11, 1905.
2. Coccidae of Kansas: V. 22, p. 265–275, 1909.
3. The contribution of Kansas to the science of entomology: V. 41, p. 61–73, 1938.

Deere, E. O.
1. A fossil tusk found in the Equus beds in McPherson County: V. 21, p. 61–73, 1938.
2. An atypical or stagehorn branch on the wild sumac (*Rhus glabra* L.): V. 39, p. 83–84, 1937.

Dell, Carl
See: Mohler, R. E. 3.

DeMand, J. W.
1. The effects of olfactory cues on the maze learning of white rats: V. 43, p. 337–338, tables 1–2, 1940.
2. Correlations between scores on the modified Alpha examination form 9 and grades in various high school subjects: V. 47, p. 417–418, tables I–II, 1945.

Dempsey, Esther
The biological anatomy of *Triosteum perfoliatum*: V. 34, p. 217–219, 1931.

Denio, Elgin A.
Note on three-electrode gap as applied to instantaneous photography: V. 34, p. 148–150, fig. 1–4, 1931.

Dennis, Parley W.
(and Wells, J. Ralph) A study of the blood picture of rabbits subjected to various types of smoke: V. 39, p. 269–273, table 1, 1937.

Devereux, George
1. Post-partum parental observances of the Mohave Indians: V. 52, no. 4, p. 458–465, 1949.
2. Notes on the developmental pattern and organic needs of Mohave Indian children: V. 53, no. 2, p. 178–185, 1950.

Devor, Arthur
See: Hershey, J. Willard 11.

Dickman, Sister Regina Marie
See: Kunerth, Bernice L. 4.

Dill, Florence E.
1. Morphology of *Veronicastrum virginicum*: V. 44, p. 158–163, plate 1–2, fig. 1–12, 1941.
2. See: Stevens, W. C. 6.
3. See: Stevens, W. C. 7.
4. See: Stevens, W. C. 9.

Dinsmore, T. H., Jr.
1. Preliminary report concerning the effects of oxygen upon animal life: V. 10, p. 72, 1887.
2. An improved fire-screen—and notes on the thermal resistance of fire screens: V. 12, p. 81, 1890.

Distler, Donald A.
See: Metcalf, Artie L.

Dobrovolny, Charles G.
1. Canine filariasis and its transmission: V. 35, p. 65–66, 1932.
2. Studies on the nematode parasites of the American cockroach, *Periplaneta americana*: V. 36, p. 213, 1933.
3. (and Dobrovolny, Marjorie Prickett) An unusual collection of polyradiate tapeworms from a dog: V. 36, p. 214, 1933.

Dobrovolny, Marjorie Prickett
1. See: Dobrovolny, C. G. 3.
2. See: Harman, Mary T. 7.

Dockeray, F. C.
Some chemical products of physical fatigue and other possible effect on mental efficiency: V. 28, p. 177, 1918.

Dodd, Jimmie D.
1. (and Hopkins, Harold H.) Yield and carbohydrate content of blue grama grass as affected by clipping: V. 61, no. 3, p. 280–287, fig. 1–2, 1958.
2. See: Choguill, Harold S. 10.

Doleeek, R. L.
Inverse processes of the radioactive Beta-decay: V. 38, p. 223, 1935.

Doll, Glennys
See: Hershey, J. Willard 16.

Dolyak, Frank
1. (and Leone, Charles A.) Some standard values of the blood and serum of the cotton rat *Sigmodon hispidus texianus*: V. 56, no. 2, p. 242–245, 1953.
2. (and Weir, J. A.) Electrophoretic analyses of the serum proteins of mice: V. 59, no. 3, p. 346–350, 1956.

Donald, Anne
Effects of epinephrine solution on plant crystals: V. 65, no. 4, p. 468–469, 1962.

Dost, Jeanne E.
An analysis of the changes in the level-of-living indexes in the wheat specialty counties, 1930, 1940, 1945, and 1950: V. 61, no. 1, p. 114–117, 1958.

Downs, Allen

See: Breukelman, John 2.

Downs, Cora M.

1. Wartime advances in yellow fever and the rickettsial infections: V. 52, no. 4, p. 407–415, fig. I–III, 1949.
2. See: Bond, Glenn C. 1.

Downs, Theodore

1. (and Breukelman, John) Birds of Lyon County and vicinity: V. 44, p. 389–399, fig. 1, 1941.
2. Birds on Tinian in the Marianas: V. 49, no. 1, p. 86–106, 3 unnumbered pictures, 1 unnumbered map, 1 unnumbered chart, 1946.
3. Amphibians and reptiles of Tinian Island: V. 51, no. 2, p. 112–116, 1948.

Dragsdorf, R. D.

See: Parkert, C. W. 1.

Drake, Ralph L.

Isulin shock therapy in the psychoses: V. 41, p. 253–255, 1938.

Drees, Linus S.

1. (and Zinszer, H. A.) Fluorescense of oil-well cuttings under the action of ultraviolet light: V. 54, no. 3, p. 407–410, fig. 1–3, 1951.
2. See: Johnston, Milford W. 1.

Duellman, William C.

A new species of finger-limbed tree frog from Mexico—Studies of American hylid frogs VIII: V. 64, no. 4, p. 349–352, fig. 1–2, 1961.

Duffield, P. C.

1. See: Johnston, C. O. 25.
2. See: Hansing, E. D. 15.

Duncan, Bertha K.

1. The ego functions and response to color on the Rorschach—(1) disturbed children and (2) institutionalized children: V. 58, no. 1, p. 252–258, tables 1–6, 1955.
2. Personality changes as reflected in Rorschach records concomitant with psychotherapy: V. 59, no. 1, p. 87–93, 1956.

Dunmire, Harriet

A study of visual space disorientation: V. 43, p. 339–341, 1940.

Dunn, J. T., Jr.

(and Fletcher, Worth A.) Concerning the preparation of some diazothioethers of thio-beta-naphthol: V. 37, p. 123–126, 1934.

Dutro, Ruth

(and Cohoe, Edith) An ecological study of Wolf's Bog, Cheboygan County, Michigan: V. 41, p. 87–96, fig. 1–4, tables 1–2, map 1, 1938.

Dyche, L. L.

1. Notes on three species of gophers found at Lawrence, Kansas: V. 12, p. 29–31, 1890.
2. Food habits of the common garden mole: V. 18, p. 183–186, 1903.
3. Notes of the food habits of California sea-lions: V. 18, p. 179–182, 1903.
4. The golden eagle: V. 19, p. 179–181, 1905.
5. The puma or American lion: V. 19, p. 160–163, plate 18 and 19, 1905.
6. The red phalarope (*Crymophilus fulicarius* Linn) A new bird for the Kansas list: V. 20, p. 131–132, 1906.

7. A Kansas beaver: V. 21, p. 165–167, 1908.
8. Some observations on the food habits of the blue jay: V. 21, p. 130–137, 1908.
9. Doctor Snow as a collector, and his collections: V. 22, p. 39–45, 1909.
10. A new bird for the Kansas list, taken at Lawrence: V. 22, p. 311, 1909.
11. On the care of mammal skins kept for museum purposes: V. 22, p. 363–368, 1909.
12. The poison-glands of a rattlesnake during the period of hibernation: V. 22, p. 312–313, 1909.

Eaton, Theodore H., Jr.
1. The aquatic origin of tetrapods: V. 63, no. 3, p. 115–124, fig. 1–3, 1960.
2. See: Hetzer, William A. 1.

Ebbert, Bernadine
See: Hershey, J. Willard 16.

Eberly, Floyd
See: Dains, F. B. 7.

Eberly, Robert Dee
Observation of variable stars by visual photometry: V. 63, no. 2, p. 61–64, fig. 1–4, 1960.

Edgar, S. A.
Artificial evagination of larval tapeworms: V. 43, p. 397–399, 1940.

Edwards, W. H.
Description of a new species of chrysophanus: V. 7, p. 66–67, 1881.

Ehrenreich, Gerald A.
The relationship of certain descriptive factors to hypnotizability: V. 52, no. 1, p. 24–27, 1949.

Eiseley, Loren C.
1. A neglected anatomical feature of the Foxhall jaw: V. 46, p. 57–59, fig. 1, 1943.
2. Racial and phylogenetic distinctions in the Intertemporal-Interangular Index: V. 46, p. 60–65, tables I–II, 1943.
3. (and Asling, C. Willet) An extreme case of scaphocephaly from a mound burial near Troy, Kansas: V. 47, no. 2, p. 241–255, plate I–V, 1944.

Eisenstark, A.
1. (and Pelon, W.) Studies on Newcastle disease virus, catalase production in infected chick embryos: V. 56, no. 1, p. 63–66, fig. 1, tables 1–2, 1953.
2. See: Liao, Y. S. 1.
3. See: Bower, R. K. 1.
4. See: Newman, F. S.

Ekstein, Rudolf
1. (and Sargent, Helen) Preliminary report on an experimental project in supervision in clinical psychology (A. Psychotherapy): V. 52, no. 2, p. 232–243, 1949.
2. Dynamic aspects of training in psychology in a professional group setting: V. 55, no. 3, p. 352–362, 1952.
3. (and Brown, William; Greenbaum, Nathan; Hollinsworth, Irene; Kobler, Arthur; Sargent, Helen) A method of supervision for psychotherapy: V. 53, no. 2, p. 254–267, 1950.
4. See: Kass, Walter 1.

Elder, James B.
See: Taylor, D. L.

Ellinthorpe, H. F.

The bacterial flora of artesian well water in Meade County, Kansas: V. 36, p. 83–86, table 1, 1933.

Emch, Arnold

1. Mathematical models: V. 14, p. 90–93, 1896.
2. On certain methods of the geometry of position: V. 18, p. 220–230, fig. 1–6, 1903.

Enberg, L. A.

1. The determination of iodides in stabilized iodized salt: V. 45, p. 165–169, tables I–IV, 1942.
2. See: Hershey, J. Willard 11.

Engel, Mary

The development of a scale to be used in play therapy research: V. 58, no. 4, p. 561–565, 1955.

Ericson, A. T.

(and Clegg, Robert E.) Effect of varying the urea concentration on the efficiency of the extraction of unsaturated fatty acids from corn oil: V. 55, no. 4, p. 493–498, fig. 1–3, 1952.

Erwin, L. E.

1. See: Bushnell, L. D. 2.
2. See: Bushnell, L. D. 3.
3. See: Bushnell, L. D. 4.
4. See: Bushnell, L. D. 5.
5. See: Bushnell, L. D. 6.
6. See: Bushnell, L. D. 7.
7. See: Bushnell, L. D. 8.
8. See: Bushnell, L. D. 9.
9. See: Bushnell, L. D. 10.
10. See: Bushnell, L. D. 11.
11. See: Bushnell, L. D. 12.

Escalona, Sibylle K.

The use of a battery of psychological tests for diognosis of maladjustment in young children, a case report: V. 48, no. 2, p. 218–223, 1945.

Eshbaugh, Fred P.

The place of research in relation to certain phases of strip land reclamation in Kansas: V. 52, no. 2, p. 149–159, fig. 1–23, 1949.

Evans, W. F.

(and Stickler, F. C.; and Laude, H. H.) Sorghum seed germination as affected by moisture and temperature: V. 64, no. 3, p. 210–217, fig. 1–3, 1961.

Everham, B. J.

See: Baumgartner, W. J. 6.

Everly, T. L.

The buried city of the Panhandle: V. 21, p. 219–228, fig. 1–4, 1908.

Evers, Helen

(and Kramer, Martha M.) Nitrogen intake of college women as indicated by the nitrogen output: V. 35, p. 104–105, 1932.

Failyer, G. H.

1. Traces of the aborigines in Riley County: V. 7, p. 129–132, 1881.
2. Notes on some Kansas mineral waters: V. 9, p. 114–115, 1885.

3. On the distribution of saccharine substance in the stem of sorghum vulgaris: V. 9, p. 34–35, 1885.
4. On the phosphorescense of chlorophane from Pike's Peak: V. 9, p. 104–105, 1885.
5. (and Willard, J. T.) On some Kansas mineral waters: V. 10, p. 63–64, fig. 1–4, 1887.
6. (and Breese, C. M.) Mineral waters: V. 11, p. 109–110, tables 1–2, 1889.
7. A new form of hydrometer: V. 11, p. 104, 1889.
8. On the occurrence of nitrates in rain water: V. 11, p. 24–25, 1889.
9. Ammonia and nitric acid in rain waters collected at the Agricultural College: V. 12, p. 21–24, tables 1–2, 1890.
10. (and Willard, J. T.) On the improvement of sorghum by seed selection: V. 13, p. 69, 1893.
11. (and Bailey, E. H. S.) A revised list of Kansas minerals: V. 13, p. 76–78, 1893.
12. See: Willard, J. T. 2.
13. See: Willard, J. T. 5.

Falls, Olive

Sex attraction in *Samia cecropia*: V. 36, p. 215–217, fig. 1, 1933.

Faragher, W. F.

The industrial research movement of today: V. 30, p. 451–459, 1922.

Farber, L. M.

See: Jackson, D. C., Jr.

Faridi, M. A. F.

Chaetomorpha henningsii P. Richter in the U. S.: V. 65, no. 4, p. 420–421, fig. 1, 1962.

Farquhar, O. C.

(and Hill, E. W., Jr.) Two reported meteorite finds in Kansas: V. 60, no. 3, p. 252–258, fig. 1, plate 1, 1957.

Fay, George E.

1. Lead-silver molds of the Osage Indians: V. 52, no. 2, p. 205–208, fig. I–III, 1949.
2. A preliminary report of an archaeological survey in southern Sonora, Mexico, 1953: V. 58, no. 4, p. 566–587, fig. 1–2, plates 1–7, sketches 1–2, unnumbered, 1955.

Fee, John

Color blindness and railway accidents: V. 7, p. 29–37, 1881.

Fellow, H. C.

The civilization of the Mound-Builders: V. 12, p. 90–95, 1890.

Fellows, H.

1. See: Hansing, E. D. 3.
2. See: Hansing, E. D. 5.
3. See: Hansing, E. D. 4.
4. See: Johnston, C. O. 7.
5. See: Sill, W. H., Jr. 3.

Fent, O. S.

Pleistocene drainage history of central Kansas: V. 53, no. 1, p. 81–90, fig. 1–5, 1950.

Ferm, Richard L.

1. See: Castonguay, Thomas T. 1.
2. See: Castonguary, Thomas T. 2.

Ferry, Q. B.

Notes on Cestoda of poultry found in and around Douglas County, Kansas: V. 36, p. 218–219, 1933.

Fickel, Ruth

Analysis of several insectan hemolymphs that agglutinate human erythrocytes: V. 65, no. 3, p. 294–297, 1962.

Fincke, John K.

See: Taft, Robert 8.

Finch, Jack N.

See: Choguill, Harold S. 2.

Findley, James S.

1. (and Jones, J. Knox, Jr.; and Vaughan, Terry A.) Records of mammals from southwestern Iowa: V. 57, no. 2, p. 212–213, 1954.
2. See: Jones, J. Knox, Jr. 3.

Finerty, John C.

See: Saffry, Olga B. 2.

Firchein, L. Lester

See: Reese, Robert W. 1.

Fish, Maxine Corrine

Differential effect of presence or absence of glaciation upon the Pteropsida of three adjacent Kansas counties: V. 56, no. 2, p. 203–219, plate 1–2, tables 1–2, 1953.

Fishel, V. C.

Ground water resources of Kansas: V. 50, no. 2, p. 105–114, fig. 1–3, 1947.

Fishburn, Maurice D.

(and Davis, John C.) Geology of celestite deposits of Brown County, Kansas: V. 65, no. 1, p. 47–60, fig. 1–7, 1962.

Fitch, Henry S.

1. (and Tanner, Wilmer W.) Remarks concerning the systematics of the collared lizard (*Crotaphytus collaris*) with a description of a new subspecies: V. 54, no. 4, p. 548–559, fig. 1–2, 1951.
2. (and Packard, Robert L.) The coyote on a natural area in northeastern Kansas: V. 58, no. 2, p. 211–221, fig. 1–3, 1955.
3. (and Lokke, Donald H.) The molluscan record of succession on the University of Kansas Natural History Reservation: V. 59, no. 4, p. 442–454, fig. 1–2, tables 1–2, 1956.
4. See: Shantz, H. L.

Flannagin, Vernon L.

A report on starch storage in separate fibers of *Polygonum coccineum* var. *Pratincola*: V. 64, no. 4, p. 304–310, fig. 1–6, 1961.

Fleenor, B. H.

1. The self-instructor method in correspondence courses: V. 36, p. 166–171, tables 2, 1933.
2. A more extensive study of the chemo-self instructional method in correspondence study: V. 39, p. 227–229, 1937.

Fleming, David G.

(and Olmsted, James M. D.) Eye movements from stimulation of the cortex of puppies with prematurely opened eyes: V. 57, no. 4, p. 493–494, 1954.

Fletcher, Hazel

See: Houston, Mariam Hill.

Fletcher, Worth A.

1. (and Lewis, Kenneth) Nitro compounds as oxidizing agents: V. 35, p. 146–148, table 1, 1932.
2. See: Daniel, Charles M. 1.
3. See: Dunn, J. T., Jr. 1.
4. See: Martin, Elmore L. 1.

Flora, S. D.

1. Some common fallacies about Kansas weather: V. 28, p. 55–60, 1934.
2. Kansas weather and its effect on crops: V. 37, p. 161–168, 1934.
3. Kansas weather, 1945: V. 48, p. 394–409, 13 unnumbered maps, 1946.
4. Kansas weather, 1946: V. 49, p. 367–377, 13 unnumbered maps, 1947.
5. Kansas weather, 1947: V. 51, no. 1, p. 1–13, 13 unnumbered maps, 1948.
6. Kansas weather, 1948: V. 52, no. 1, p. 1–12, 13 unnumbered diagrams, 1949.

Floyd, Willis W.

1. The use of the quinhydrone electrode in the determination of the activity of the hydrogen ion in a solution of sucrose which is undergoing catalytic inversion by hydrochloric acid at 25°: V. 36, p. 118, 1933.
2. The contribution of secondary school chemistry courses to proficiency in general inorganic chemistry and qualitative analysis in the University of Kansas: V. 37, p. 127–128, table 1, 1934.
3. See: Brewster, R. Q. 2.

Foard, Castle W.

Electron-atom collision effects in mercury vapor: V. 33, p. 74–77, table 1, 1930.

Foltz, V. D.

See: McCalla, T. M. 1.

Ford, Helen W.

A study of birthweights with relation to the age of mother and season of birth: V. 31, p. 103–105, 1938.

Foster, Mark A.

See: Johnson, George E. 3.

Fox, Roy L.

See: Younkin, Russell J. 1.

Franklin, Edward Curtis

1. Reactions in liquid ammonia: V. 19, p. 74–77, 1905.
2. See: Bailey, E. H. S. 8.

Franklin, W. S.

1. A new method of studying absorption spectra: V. 9, p. 98–100, fig. 1–2, 1885.
2. On the classification of the sensations of smell: V. 12, p. 7–8, 1890.
3. See: Nichols, Edward L. 5.
4. See: Blake, L. I. 2.

Franks, James W.

(and Hopkins, Harold H.) Upland depressions in a mixed prairie: V. 57, no. 1, p. 48–54, fig. 1, tables 1–2, 1954.

Franzen, Dorothea S.

1. (and Leonard, Byron) A preliminary survey of the mollusca of Kingman County, Kansas: V. 45, p. 334–343, plate I, fig. 1–17; plate II, fig. 18–27; unnumbered map 1, 1942.

2. New state records of mollusca from Kansas: V. 47, no. 2, p. 261–273, plate I, fig. 1–13, fig. 1, 1944.
3. Living and fossil pupillidae (Gastropoda) of the Sanborn area, northwestern Kansas: V. 49, no. 4, p. 407–419, plate I, fig. 1–11; plate II, fig. 1–11, 1947.
4. The pocket gopher, *Geomy quinni* McGrew, in the Rexroad fauna, Blancan Age, of southwestern Kansas: V. 50, no. 1, p. 55–59, table 1, plate A, fig. 1–6, 1947.

Fraser, S. V.

1. The flora of Cloud County: V. 34, p. 220–230, 1931.
2. *Allium perdulce*, a new allium from Kansas: V. 42, p. 123–126, unnumbered fig., p. 126, 1939.

Frazier, John C.

1. Influence of time of cultivation on bindweeds: V. 44, p. 167–169, tables 1–2, plate 1, 1941.
2. Report of the Kansas Academy delegate to the Academy Conference at Boston: V. 50, no. 2, p. 239–240, 1947.
3. An anomalous development in a hard winter wheat plant tiller: V. 57, no. 4, p. 447–448, fig. 1–2, 1954.

Frazier, Ralph P.

1. See: Breukleman, John 13.
2. See: Breukleman, John 14.

Freiburg, Richard D.

An ecological study of the narrow-mouthed toad (*Microhyla*) in northeastern Kansas: V. 54, no. 3, p. 374–386, tables 1–6, 1951.

Frydendall, Merrill

Occurrence of *Peromyscus leucopus aridulus* in Ellis County, Kansas with some notes on their activities: V. 64, no. 1, p. 36–40, fig. 1, 1961.

Frye, John C.

1. (and Kaiser, Charles P.) Geology in the present war: V. 46, p. 290–293, 1943.
2. The High Plains surface in Kansas: V. 49, no. 1, p. 71–86, plate I–III, fig. 1, 1946.
3. (and Swineford, Ada) The Plains Border physiographic section: V. 52, no. 1, p. 71–81, plate 1 (A–D); plate 2 (A–E); plate 3 (A–C) 1 figure, 1949.
4. Use of fossil soil in Kansas Pleistocene stratigraphy: V. 52, no. 4, p. 478–482, 1949.
5. Importance of Pleistocene studies for ground-water investigations in Kansas: V. 54, no. 3, p. 226–232, fig. 1–2, 1951.
6. (and Schoewe, Walter H.) The basis for physiographic subdivision of Kansas: V. 56, no. 2, p. 246–252, fig. 1–2, 1953.
7. (and Leonard, A. Byron) Reinterpretation of supposed late Tertiary chert gravels north of Atchison, Kansas: V. 57, no. 3, p. 366–367, 1954.
8. The erosional history of the Flint Hills: V. 58, no. 1, p. 79–86, fig. 1, 1955.
9. See: Swineford, Ada 2.

Fulton, John H.

Spectral response of molybdenite in vacus under influence of heat: V. 34, p. 248–254, fig. 1–7, 1931.

Furumoto, H. H.

See: Ackert, J. E. 7.

Gaafar, S. M.

(and Ameel, D. J.) Incidence of helminths in some Kansas dogs: V. 53, no. 3, p. 328–330, 1950.

Gaeddert, Emil

See: Kroeker, E. H. 1.

Gainey, P. L.

1. See: Green, Mary M. 1.
2. See: Liao, Y. S. 2.

Galbreath, Edwin C.

1. Triangles in the teeth of the mammalian genus *Ondatra*: V. 48, no. 4, p. 457–458, 1946.
2. Additions to the flora of the late Pleistocene deposits at Ashmore, Illinois: V. 50, no. 1, p. 60–61, 1947.
3. An additional specimen of the rodent dikkomys from the Miocene of Nebraska: V. 51, no. 3, p. 316–317, 1 fig., 1948.
4. Growth and development of teeth in the muskrat: V. 57, no. 2, p. 238–241, fig. 1, table 1, 1954.
5. A new eomyid rodent from the lower Oligocene of northeastern Colorado: V. 58, no. 1, p. 75–78, fig. 1, 1955.
6. *Cynarctoides arcidens* from northeastern Colorado: V. 59, no. 3, p. 373–378, 1956.
7. A saber-tooth cat from south-central Kansas: V. 61, no. 3, p. 328–329, 1958.
8. Collecting fossils from harvester ant mounds: V. 62, no. 2, p. 173–174, 1959.
9. The skull of *Heliscomys*, an Oligocene heteromyid rodent: V. 64, no. 3, p. 225–230, fig. 1, 1961.
10. The deciduous premolars of the Oligocene heteromyid rodent *Helyiscomys*: V. 65, no. 3, p. 263–265, fig. 1, 1962.
11. A new myotid bat from the Middle Oligocene of northeastern Colorado: V. 65, no. 4, p. 448–451, fig. 1, 1962.

Gallemore, Isabel

(and Kramer, Martha M.) Calcium intake of college women as indicated by the calcium output: V. 35, p. 106, 1932.

Gallup, G. A.

1. (and Gilkerson, W. R.; and Jones, M. M.) A theoretical formulation of the Hammett equation: V. 55, p. 232–236, tables 1–3, 1952.
2. See: Gilkerson, W. R. 1.
3. See: Gilles, Paul W. 1.

Gardner, F. V.

An outline of semantics for the psychologist: V. 52, no. 3, p. 381–385, 1949.

Garlock, Mary

A study of the blood pictures of rabbits subjected to tobacco and other smokes: V. 38, p. 307–310, table 1, 1935.

Garrett, A. O.

1. A provisional list of the Uredineae of Bourbon County, Kansas: V. 18, p. 147–150, 1903.
2. Additions to the list of Uredineae of Bourbon County: V. 24, p. 239, 1910.

Garrett, R. A.

1. Kansas weather, 1949: V. 53, no. 1, p. 1–12, fig. 1–13 unnumbered, 1950.
2. Kansas weather, 1950: V. 54, no. 1, p. 1–11, 14 unnumbered fig., 1951.
3. Kansas flood producing rains of 1951: V. 54, no. 3, p. 346–355, fig. 1–4, 1951.
4. Kansas weather, 1951: V. 55, no. 2, p. 147–158, fig. 1–13, 1952.
5. Kansas weather, 1952: V. 56, no. 4, p. 387–394, fig. 1–13 unnumbered, 1953.
6. Kansas weather, 1953: V. 57, no. 3, p. 269–277, fig. 1–13, 1954.
7. The weather of 1954 in Kansas: V. 59, no. 1, p. 1–8, 1956.

Garrigues, Ned. W.

Placement of internal organs in snakes in relation to ventral scalation: V. 65, no. 3, p. 297–300, 1962.

Garrison, R. G.

(and Harris, John O.) The preliminary description of a cellulose digesting micrococcus: V. 57, no. 1, p. 81–84, fig. 1, 1954.

Gates, David M.

1. A deposit of mammal bones under Sleeping Bear Dune: V. 42, p. 337–338, unnumbered diagram, 1939.
2. Notes on the evaporation of the thin metallic films: V. 45, p. 263–266, fig. 1–2, 1942.

Gates, Frank C.

1. Kansas botanical notes, 1923–1928: V. 31, p. 49–50, summary papers, 1924, 1925, 1926, 1927, 1928.
2. (and Cashon, Dorothy J.) Star-thistle (*Centaurea pieris* Pall) a new weed in Kansas: V. 31, p. 50, 1922.
3. Botanical notes, 1928–1929: V. 33, p. 26–27, 1930.
4. *Ranunculus abortivus f. giganteus*, a new form from eastern Kansas: V. 33, p. 28, 1930.
5. Kansas botanical notes, 1930: V. 34, p. 136–137, 1931.
6. Kansas botanical notes, 1931: V. 35, p. 63, 1932.
7. Kansas botanical notes, 1932: V. 36, p. 87–88, 1933.
8. Kansas botanical notes, 1933: V. 37, p. 73–74, 1934.
9. Kansas botanical notes, 1934: V. 38, p. 99–100, 1935.
10. Kansas botanical notes, 1935: V. 39, p. 85–87, fig. 1–2, 1937.
11. A preserve unhampered by man: V. 39, p. 89–93, fig. 1–11, 1937.
12. Kansas botanical notes, 1936: V. 40, p. 67–68, 1938.
13. Kansas botanical notes, 1937: V. 41, p. 97–98, 1938.
14. Kansas botanical notes, 1938: V. 42, p. 133–134, unnumbered table, 1939.
15. Kansas botanical notes, 1939: V. 43, p. 97, 1940.
16. Kansas botanical notes, 1940: V. 44, p. 170–171, 1941.
17. Kansas botanical notes, 1941: V. 45, p. 92–93, 1942.
18. Kansas botanical notes, 1942: V. 46, p. 100–101, 1943.
19. Kansas botanical notes, 1943: V. 47, no. 2, p. 257–258, 1944.
20. Kansas botanical notes, 1944: V. 48, no. 2, p. 165–168, 1945.
21. (and Prince, S. Fred) *Taraxacum laevigatum f. scapifolium*, a new form of dandelion: V. 41, p. 119–120, fig. 1–7, plate 1, 1938.
22. Woody plants, native and naturalized, in Kansas: V. 41, p. 99–118, fig. 1–208, unmarked, 1938.
23. New forms and nomenclatorial combinations in the Kansas flora: V. 42, p. 135–138, 1939.
24. Trends of tree migration in Kansas: V. 42, p. 127, fig. 1–30, plates I–III, 1939.
25. Recent migrational trends in the distribution of weeds in Kansas: V. 43, p. 99–117, charts 1–2, plates 1–3, fig. 1–61, 1940.
26. No. 1 Plant succession: V. 45, p. 27–35, fig. 1–9, 1942.
27. *Amphiachyris dracunculoides* as a poisonous plant: V. 48, no. 1, p. 87–89, 1945.
28. Kansas botanical notes, 1945, including species new to the state: V. 49, no. 2, p. 195–196, 1946.
29. Kansas botanical notes, 1946, including species new to the state: V. 50, no. 1, p. 72–74, 1947.
30. Kansas botanical notes, 1947, including species new to the state: V. 51, no. 2, p. 201–202, 1948.
31. Report of the Academy Conference at the Washington meeting of the American Association for the Advancement of Science: V. 51, no. 4, p. 490–492, 1948.

32. Report of the delegate to the Academy Conference: V. 51, no. 2, p. 235–236, 1948.
33. Kansas botanical notes, 1948: V. 52, no. 2, p. 259–260, 1949.
34. Hat Island, Lake Michigan—Its revegetation after bombing: V. 53, no. 2, p. 217–228, fig. 1–9.
35. Kansas botanical notes, 1949, including species new to Kansas: V. 53, no. 2, p. 176–177, 1950.
36. Report of the Academy delegate: V. 53, no. 1, p. 101–102, 1950.
37. (and McGregor, R. L.) *Rumex alluvius*, a new species of duck from Kansas: V. 53, no. 2, p. 186–189, fig. 1–4, unnumbered, 1950.
38. Report of Academy Conference delegate: V. 54, no. 1, p. 112–113, 1951.
39. Kansas botanical notes, 1950, including species new to Kansas: V. 54, no. 2, p. 209–211, 1951.
40. Kansas botanical notes, 1951, including species new to Kansas: V. 55, no. 3, p. 280–281, fig. 1, 1952.
41. Kansas botanical notes, 1952, including species new to Kansas: V. 56, no. 3, p. 308–309, 1953.
42. Kansas botanical notes, 1953: V. 57, no. 2, p. 147–148, 1954.
43. Kansas botanical notes, 1954: V. 58, no. 3, p. 324–325, 1955.

Gates, Gerald O.

A study of the herpetofauna in the vicinity of Wickenburg, Maricopa County, Arizona: V. 60, no. 4, p. 403–418, 1957.

Gaumer, Geo. F.

1. Observations on the habits of certain larvae: V. 4, p. 23–24, 1875.
2. Notes on the habits of certain Momotidae: V. 8, p. 63–66, 1883.
3. Notes on *Meleagris ocellata*, Cuvier: V. 8, p. 60–62, 1883.

Gehlbach, Frederick R.

Annotated records of southwestern amphibians and reptiles: V. 59, no. 3, p. 364–372, 1956.

Geldreich, Edward W.

1. Skin conductance changes occurring during mental fatigue: V. 42, p. 393–395, 1939.
2. Skin conductance changes occurring during mental fatigue and amoxemia: V. 43, p. 343–344, 1940.
3. Studies of galvanic skin response as a deception indicator: V. 44, p. 346–351, tables 1–2, 1941.
4. Further studies of the use of the galvanic skin response as a deception indicator: V. 45, p. 279–284, tables I–III, 1942.
5. Mental work blocks the galvanic skin response: V. 46, p. 198–203, 2 unlabeled graphs, 1943.
6. Possible use of entry occupational classification, dictionary of occupational titles, part IV, by high school counselors: V. 49, no. 2, p. 210–216, table 1, 1946.
7. See: Ingram, Clena V. 1.

Gemmell, George

Relation of the awn to yield in Kansas wheat: V. 36, p. 89–90, 1933.

Gentry, A. N.

A survey of biology teaching in Kansas high schools: V. 43, p. 357–361, tables 1–5, 1940.

Gerundo, Michele

1. (and Gold, Allen) On the nature of Forssman antigen-antibody complexes present in rabbit blood: V. 46, p. 70–74, tables I–II, 1943.
2. (and Gold, Allen) Some investigations on the probable enzymatic nature of complement: V. 46, p. 75–79, tables I–III, 1943.

Gibbens, E. Elliott

1. (and Zinszer, H. A.) Raman effect of 2-chloro-2 nitro propane: V. 55, no. 4, p. 472–476, fig. 3, 1952.
2. (and Zinszer, H. A.) Transitivity curves of the new chemical compounds: V. 55, no. 4, p. 477–478, fig. 1–2, 1952.

Gibbens, Robert

Root and top development of five native Kansas legumes during first season of growth: V. 57, no. 1, p. 23–40, fig. 1–9, 1954.

Gibson, Hilden

Atomic energy—progress or distaster: V. 53, no. 2, p. 133–140, 1950.

Gibson, William W.

(and Painter, R. H.) The occurrence of wheat curl mites, *Aceria tulipae* (K.), (Eriophyidae), a vector of wheat streak mosaic on winter wheat seedlings grown on infested kernels: V. 59, no. 4, p. 492–494, table 1, 1956.

Gier, H. T.

1. The gross abnormal anatomy of a two-headed calf: V. 34, p. 132–135, diagram 1, 1931.
2. See: Haines, John M. 1.
3. (and Bradshaw, G. V. R.) Five-year report on the Kansas small mammal census: V. 60, no. 3, p. 259–272, fig. 1–3, tables 1–2, 1957.

Gier, Leland J.

1. A preliminary key to the herbaceous dicotyledons of the Cherokee strip of southeast Kansas: V. 34, p. 255–267, 1931.
2. Study of peridermium gall on western yellow pine: V. 37, p. 75–76, 1934.
3. Effects of ultrashort radio waves and ultraviolet light on microorganisms: V. 40, p. 55–57, 1938.
4. Flora of Crawford County, Kansas, State Park—Mosses: V. 43, p. 119, 1940.
5. (and Burress, R. M.) Anatomy of *Taraxacum officinal* 'Weber': V. 45, p. 94–97, fig. A–E, 1942.
6. Development of adventitious roots inside the trunks of trees: V. 48, no. 2, p. 198, 1945.
7. Shoot root ratio and moisture relations: V. 48, no. 2, p. 205–218, plate I, fig. A–B, 1945.
8. Observations on abnormal anatomy two-headed calf: V. 48, no. 4, p. 445–447, fig. 1–2, 1946.
9. (and Ponder, Wanda) Flowering plants of Clay County, Missouri: V. 50, no. 2, p. 194–199, 1947.
10. (and White, J. A.) Histological study of the duodenum of the white rat: V. 50, no. 3, p. 318–319, 1947.
11. (and Stigers, C. C.) Spermatogenesis in *Pseudacris triseriata*: V. 50, no. 3, p. 320–321, 1947.
12. Bryophytes of Kansas: V. 52, no. 1, p. 58–65, tables I–III, fig. 1, 1949.
13. (and Johnson, Martha) Algae of Missouri: V. 57, no. 1, p. 78–80, 1954.
14. (and Jones, Don C.) Missouri lichens: V. 57, no. 1, p. 73–77, 1954.
15. *Physcomitrium collenchymatum*: V. 58, no. 3, p. 330–333, plate 1, fig. 1–9, table 1, 1955.
16. (and Kennedy, Ellen) *Thelia lescurrii*—an environmental form: V. 58, no. 3, p. 334–336, fig. 1–4, 1955.
17. (and Huggins, George F.) Flora of Clay County, Missouri: Polyporaceae: V. 61, no. 2, p. 163–164, 1958.

Gilkerson, W. R.

1. (and Gallup, G. A.; and Jones, M. M.) A special case of the Hammett equation: V. 57, no. 3, p. 391–396, tables 1–2, fig. 1–2, 1954.
2. See: Gallup, G. A. 1.

Gilles, Paul W.

(and Gallup, G. A.) Free energy and entropy of translation tables: V. 56, no. 4, p. 465–468, tables 1–2, 1953.

Gillum, Isabelle

1. (and Kramer, M. M.) Some effect of experimental diets upon the vitamin C content of certain organs of the guinea pig (Cavia Cobayo): V. 38, p. 205–208, 1935.
2. See: Harman, Mary T. 10.
3. See: Harman, Mary T. 13.

Gish, C. L.

Supplementing broiler rations with distillers solubles: V. 52, no. 4, p. 466–467, 1949.

Gladfelter, C. F.

Milkweed floss collection in Kansas: V. 49, no. 2, p. 217–218, 1946.

Gladfelter, Robert E.

(and Cram, S. Winston) Micro-wave phenomena: V. 51, no. 3, p. 328–332, fig. 1–8, 1948.

Glaser, Adelaide E.

(and Kramer, Martha M.) A method for comparing the relative economy of various foods as sources of dietary essentials: V. 32, p. 27–30, charts 1–3, 1929.

Glendening, B. L.

See: Schrenk, W. G. 1.

Gloyd, Howard

The amphibians and reptiles of Franklin County, Kansas: V. 31, p. 115–141, tables 1–26, 1926.

Goff, Richard

The effects of increased atmospheric pressure on the developing embryo of zebra fish, *Brachydanio rerio* (Hamilton): V. 43, p. 401–410, tables 1–3, 1940.

Gold, Allen

1. The purification of curare: V. 44, p. 221–226, fig. 1, 1941.
2. See: Gerundo, Michele 1.
3. See: Gerundo, Michele 2.

Good, C. M., Jr.

The genetics of the grouse locust *Tettigidea parvipennis* Harris: V. 44, p. 234–237, tables 1–3, 1941.

Goodman, Donald Charles

Quantitative studies on the distribution of lipids in the bone marrow of the rat, pig, and cat: V. 55, no. 2, p. 214–222, tables 1–2, fig. 1–8, 1952.

Goodrich, Arthur L.

1. Crevecouer's notes on birds in Pottawatomie County, Kansas: V. 35, p. 85–92, tables 1–3, 1932.
2. Species of birds added to the Kansas faunal list since 1900, with reference to the first record: V. 49, no. 4, p. 420–432, 1947.

Gordon, Glen H.

1. A recent sink hole near Potwin, Kansas: V. 41, p. 207–210, fig. 1–2, 1938.
2. A subsurface study of the black shales of western Kansas: V. 41, p. 201–215, 1938.

Gordon, Ira J.

The Kansas wheat farm culture and implications for guidance at the Kansas State College: V. 55, no. 1, p. 54–61, 1952.

Goss, James A.

In vitro germination of *Ornithogalum caudatum* pollen: V. 65, no. 3, p. 310–317, fig. 1–7, 1962.

Goss, N. S.

1. Observation of the nesting habits of the guillemots at Bird Rock: V. 8, p. 59–60, 1883.
2. Birds new to the fauna of Kansas, and birds rare in the state: V. 9, p. 26–27, 1885.
3. Notes on the nesting habits of the yellow-throated vireo: V. 9, p. 33–34, 1885.
4. Observation of the breeding habits of the American eared grebes: V. 9, p. 31–32, 1885.
5. Additions to the catalogue of Kansas birds: V. 10, p. 28–31, 1887.
6. Additions to the catalogue of the birds of Kansas: V. 10, p. 77–80, 1887.
7. Additions to the catalogue of the birds of Kansas, with notes in regard to their habits, etc.: V. 11, p. 60–62, 1889.
8. The Anhinga (*Anhinga anhinga* Linn): V. 11, p. 58–59, 1889.
9. The double crested cormorant: V. 11, p. 59–60, 1889.
10. Feeding habits of *Pelecanus erythrorhynchos*: V. 11, p. 11–12, 1889.
11. *Ictinia mississippiensis* and *Aegialitis nivosa*, nesting in south-central Kansas: V. 11, p. 11, 1889.
12. Notes on the yellow-tailed cassigue: V. 11, p. 12–13, 1889.
13. Additions to Kansas birds: V. 12, p. 24, 1890.
14. Second occurrence of the white-faced glossy ibis—*Plegadis guarauna* in Kansas: V. 12, p. 61, 1890.
15. Correction: V. 12, p. 60–61, 1890.

Gottlieb, Selma

1. Fluorides in Kansas waters and their relation to mottled enamel: V. 37, p. 129–132, 1934.
2. See: Crain, Frank T. 1.
3. See: Crum, L. A. 1.

Gould, C. H.

1. Prehistoric mounds in Cowley County: V. 15, p. 79–80, 1898.
2. The timbered mounds of the Kaw reservation: V. 15, p. 78–79, 1898.
3. Additional notes on the timbered mounds of the Kaw reservation: V. 16, p. 282, 1899.
4. On the finding of fossil insects in the Comanche Cretaceous of Kansas: V. 16, p. 284, 1899.
5. Natural history possibilities of Belvidere, Kansas and vicinity: V. 16, p. 283, 1899.
6. The Dakota Cretaceous of Kansas and Nebraska: V. 17, p. 122–178, plate 4–12, 1901.
7. The Oklahoma salt plains: V. 17, p. 181–184, 1901.
8. Southern extension of the Marion and Wellington formations: V. 17, p. 179–181, 1901.
9. Notes on trees, shrubs and vines in the Cherokee Nation: V. 18, p. 145–146, 1903.

Goyette, Lewis E.

Studies on the extracellular starch production by species of *Torulopsis*: V. 54, no. 1, p. 28–35, tables 1–2, 1951.

Graber, Richard and Jean

Notes on the birds of southwestern Kansas: V. 54, no. 2, p. 145–174, 1951.

Graffham, Allen
1. Notes on basalt artifacts found in the Pleistocene gravels of Kansas: V. 47, p. 259–260, 1944.
2. See: Hibbard, Claude W. 16.

Graham, A. A.
1. One of the first millstones: V. 27, p. 117–118, 1915.
2. The origin of cyclones: V. 29, p. 100, 1920.

Graham, I. D.
1. Heredity in stock breeding: V. 21, p. 263–265, 1908.
2. Some factors in agricultural cost production: V. 30, p. 225–232, 1922.

Grant, A. A.
See: Ackert, J. E. 1.

Gray, Joseph L.
Effects of five diets on the growth and mortality of fry to fingerling channel catfish (*Ictalurus punctatus*): V. 61, no. 3, p. 288–298, 1958.

Green, Morton
1. The cranial and appendicular osteology of *Aplodinotus grunniens* Rafinesque: V. 44, p. 400–413, plate 1–2, fig. 1–17, 1941.
2. A study of the Oligocene Leporidae in the Kansas University Museum of Vertebrate Paleontology: V. 45, p. 229–247, plate I, fig. 1–11; plate II, fig. 12–15; plate III, fig. 16–27; 4 unnumbered tables, 1942.
3. A malformed skull of *Aplodinotus grunniens* Rafinesque: V. 47, no. 3, p. 355–357, fig. 1, 1945.
4. A cynarctine from the Upper Oligocene of South Dakota: V. 57, no. 2, p. 218–220, fig. 1, 1954.

Green, Mary M.
(and Garney, P. L.) The quality of Riley County rural school drinking water: V. 52, no. 4, p. 511–517, tables I–III, 1949.

Greenbaum, Nathan
See: Ekstein, Rudolf 3.

Greene, J. S.
Chemistry in the war effort: V. 46, p. 280–285, 1943.

Greenhut, Ann
See: Lichlyter, Dean E. 1.

Greer, J. K.
(and Cross, Frank B.) Fishes of El Dorado City Lake, Butler County, Kansas: V. 59, no. 3, p. 358–363, 1956.

Gregory, Francis
Where theory and practice should meet: V. 49, no. 4, p. 437–440, 1947.

Griffin, E. L.
See: Dains, F. B. 4.

Grimsley, G. P.
1. Gypsum in Kansas: V. 15, p. 122–127, 1898.
2. The study of natural palimpsests: V. 15, p. 127–130, 1898.
3. Kansas mines and minerals: V. 17, p. 200–207, 1901.
4. Economic geology of Iola and vicinity: V. 18, p. 78–82, plate 1, 1903.
5. The Kansas mineral exhibit at St. Louis: V. 19, p. 129–137, plate 14, 1905.
6. Necrology; Peter McVicar: V. 19, p. 435–436, 1905.
7. Origin of gypsum with special reference to the origin of the Michigan deposits: V. 19, p. 110–117, plates 10–11, 1905.

Griswold, Sherwin B.

A study of the woody plants along the streams which cross Ellis County, Kansas: V. 45, p. 98–106, tables I–II, fig. I–VI, 1942.

Groner, O. S.

Recent methods in elementary organic analysis: V. 23, p. 43–48, 1909.

Grote, A. R.

1. New western Noctuidae: V. 7, p. 61–66, 1881.
2. On the moths collected by Professor Snow in New Mexico: V. 8, p. 45–57, 1883.

Groverman, Lester J.

A modified quadruple stain for animal tissues: V. 44, p. 414–417, plate 1, fig. 1–8, 1941.

Grundmann, A. W.

(and Boles, H. P.; and Ackert, J. E.) Plague flea, *Xenopsylla cheopsis* in Kansas: V. 44, p. 238–240, 1941.

Gugliemelli, L. A.

(and Mitchell, H. L.; and Silker, Ralph E.) The xanthophylls of alfalfa: V. 57, no. 3, p. 368–373, fig. 1–3, table 1, 1954.

Guhl, A. M.

1. Some observations and experiments on social behavior in the domestic fowl: V. 47, no. 3, p. 337–341, 1945.
2. Unisexual mating in a flock of white leghorn hens: V. 51, no. 2, p. 107–111, 1948.
3. Report of Academy Conference delegate: V. 55, no. 1, p. 146, 1952.
4. (and Atkenson, F. W.) Social organization in a herd of dairy cows: V. 62, no. 1, p. 80–87, 1959.
5. Psycho-physiological factors and social behavior related to sexual behavior in birds: V. 63, no. 2, p. 85–95, 1960.

Gurwell, Bill

A behavioristic study of the American opossum and its relationship to illumination: V. 61, no. 1, p. 35–36, fig. 1, 1958.

Haas, H. F.

(and Yantzi, M. F.; and Bushnell, L. D.) Microbial utilization of hydrocarbons: V. 44, p. 39–45, tables 1–6, 1941.

Habermann, Robert T.

See: Menges, Robert W.

Haines, John M.

(and Gier, H. T.) Distribution of microtine rodents in Kansas: V. 54, no. 1, p. 58–63, fig. 1–2, 1951.

Hale, Mason E., Jr.

1. A survey of upland forests in the Chautuaqua Hills, Kansas: V. 58, no. 2, p. 165–168, fig. 1, table I, 1955.
2. 2, 4-Dihydroxy depsides in North American lichens: V. 59, no. 2, p. 229–232, table 1, 1956.
3. Corticolous lichen flora of the Ozark Mountains: V. 60, no. 2, p. 155–160, 1957.

Hall, E. Raymond

1. Dental caries in wild bears: V. 48, p. 79–85, plate I, plate II, fig. 1–5; plate III, fig. 1–3; plate IV, fig. 1–6, 1945.

2. State administration of wildlife, a natural resource: V. 53, no. 2, p. 295–301, 1950.
3. A westward extension of known geographic range for the timber rattlesnake in southern Kansas: V. 56, p. 89, 1953.
4. Prairie National Park: V. 64, no. 3, p. 265–266, 1961.
5. See: Bee, James W. 1.
6. See: Dalquest, Walter W. 1.
7. See: Park, Helen 1.

Hall, Harry H.

1. An ecological study of the fishes of Mineral Lake, Kansas: V. 37, p. 225–234, fig. 1–2, 1934.
2. The birds of southeastern Kansas, with migration dates: V. 38, p. 311–315, 1935.
3. The romance and reclamation of the coal lands of southeastern Kansas: V. 43, p. 57–68, fig. 1–6, 1940.
4. The geological history of the coal lands of southeastern Kansas: V. 46, p. 179–184, 1943.
5. (and Smith, Hobart M.) Selected records of reptiles and amphibians from southeastern Kansas: V. 49, no. 4, p. 447–454, 1947.
6. See: Ross, Bennington 1.
7. See: Travis, Gerald 1.

Hall, J. Lowe

1. The sodium-calcium balance as a function of nerve excitability and cell permeability (abstract): V. 32, p. 26, 1929.
2. See: Caldwell, M. J. 1.
3. See: Mackintosh, David 1.

Hall, Luther A. R.

(and Vanderwerf, Calvin A.) A new commercial synthesis of the insecticide parathion: V. 55, no. 1, p. 131–137, tables 1–5, 1952.

Hall, Mina G.

See: Nelson, Esther Bruner 1.

Hamersley, Jonathan

See: Hershey, J. Willard 14.

Hamilton, Tom R.

See: Sherwood, Noble P. 2.

Hammatt, T. D.

See: Graham, I. D.

Hampton, Raymond

Intergradation of the bullhead minnow: V. 57, no. 4, p. 480–481, 1954.

Hancin, John

Flora of Saline County; ferns and flowering plants: V. 42, p. 139–149, 1939.

Haney, Paul D.

The use of activated carbon in water purification: V. 38, p. 153–156, 1935.

Hansen, M. F.

See: Lyons, E. T.

Hansing, E. D.

1. (and Melchers, L. E.) Further studies on the occurrence and distribution of physiologic races of *Tilletia foetida* in Kansas: V. 48, no. 1, p. 71–78, tables I–II, fig. 1, 1945.

2. (and Johnston, C. O.) Kansas phytopathological notes; 1947: V. 51, no. 3, p. 318–323, 1 table, 1948.
3. (and Johnston, C. O.; Melchers, L. C.; and Fellows, H.) Kansas phytopathological notes, 1948: V. 52, no. 3, p. 363–369, table 1, 1949.
4. (and Melchers, L. E.; Fellows, H.; and Johnston, C. O.) Kansas phytopathological notes, 1949: V. 53, no. 3, p. 344–354, table 1, fig. 1–2, 1950.
5. (and Johnston, C. O.; King, C. L.; Rogerson, C. T.; and Fellows, H.) Kansas phytopathological notes, 1951: V. 56, no. 4, p. 425–431, fig. 1, table 1, 1953.
6. (and Sill, W. H., Jr.; Johnston, C. O.; Rogerson, C. T.) Kansas phytopathological notes, 1956: V. 61, no. 3, p. 259–272, 1958.
7. (and Sill, W. H., Jr.; Johnston, C. O.; Duffield, P. C.; Kramer, C. L.; and King, C. L.) Kansas phytopathological notes, 1959: V. 64, no. 3, p. 198–204, 1961.
8. See: Johnston, C. O. 1.
9. See: Johnston, C. O. 2.
10. See: Johnston, C. O. 3.
11. See: Johnston, C. O. 25.
12. See: Pady, Stuart M. 4.
13. See: Pady, Stuart M. 5.
14. See: Schmidt, J. W. 1.
15. See: Sill, W. H., Jr. 3.
16. See: Sill, W. H., Jr. 6.
17. See: Sill, W. H., Jr. 7.
18. See: Sill, W. H., Jr. 6.
19. See: Swarup, Gopal.

Harbaugh, M. J.

The occurrence of *Phrynosoma coronatum frontale* in Montana: V. 38, p. 317, 1935.

Harman, Mary T.

1. A probable case of superfetation in the cow: V. 29, p. 98, 1928.
2. Heat as a factor in producing abnormalities during incubation in the chick: V. 31, p. 66–67, tables 1–2, chart 1–2, 1922.
3. (and Prickett, Marjorie) The development of the external form of the guinea pig (*Cavia cobaya*) between 15 days and 21 days of gestation: V. 33, p. 64, 1930.
4. (and Prickett, Marjorie) The development of the external form of the guinea pig (*Cavia cobaya*) between the ages of 11 and 20 days of gestation: V. 34, p. 232–233, 1931.
5. (and Prickett, Marjorie) The fetal membranes of the guinea pig (*Cavia cobaya*): V. 34, p. 231, 1931.
6. (and Prickett, Marjorie) Observations on the breeding of the guinea pig: V. 34, p. 231, 1931.
7. (and Dobrovolny, Marjorie Prickett) The development of the external form of the guinea pig (*Cavia cobaya*) between the ages of 21 days and 35 days of gestation: V. 35, p. 98, 1932.
8. Two pigs within a single chorion with some considerations concerning monochorionic twins: V. 36, p. 220–223, 1933.
9. Parthenogenesis in the ovaries of guinea pigs: V. 38, p. 319–320, 1935.
10. (and Gillum, Isabelle) Some effects of experimental diets upon the reproduction and growth of the guinea pig (*Cavia cobaya*): V. 38, p. 321, 1935.
11. (and Smith, Arlene) Some observations on the development of the teeth of *Cavia cobaya*: V. 38, p. 323, 1935.
12. (and Herbertson, James E.) Concerning the postnatal obliteration of the umbilical vein and arteries, the vitelline vein and artery and the ductus arteriosus in the guinea pig: V. 41, p. 369–377, fig. 1–6, 1938.

13. (and Gillum, Isabelle) Further observations on reproduction in guinea pigs fed vitamin C at different levels: V. 40, p. 369–376, fig. 1, tables 1–3, 1938.
14. (and Miller, Abbie) Some effects on guinea pigs of feeding vitamin C intermittently: V. 42, p. 445–449, 1939.
15. (and Alsop, Annette) Pigment production in the guinea pig: V. 42, p. 443–444, 1939.
16. (and Case, Annette Alsop) The influence of certain genetic factors upon eye color in the guinea pig: V. 45, p. 344–357, fig. A–N, 1942.
17. (and Kordisch, Mary Schroller) Some experiments with vitamin C and its effect on the blood of guinea pigs: V. 47, no. 3, p. 367–373, 1945.
18. Some effects of vitamin C deficiency upon the male guinea pig: V. 53, no. 3, p. 310–327, tables 1–5, fig. 1–2, 1950.
19. (and Warren, Leonard Earnest) Some embryological aspects of vitamin C deficiency in the guinea pig (*Cavia cobaya*): V. 54, no. 1, p. 42–57, plate 1, fig. 1–6; plate 2, fig. 7–12; plate 3, fig. 13–18; plate 4, fig. 19–20; tables 1–2, charts 1–2, 1951.
20. (and Bascom, John Upton) An investigation into the possible relationship between vitamin C and the adrenal cortex of the guinea pig: V. 54, no. 2, p. 193–206, fig. 1–4, tables 1–6, 1951.
21. Some effects on the cortex of the adrenal glands of guinea pigs deprived of vitamin C in their diet: V. 57, no. 4, p. 461–470, plate 1–3, fig. 1–6, 1954.
22. See: Saffry, Olga.

Harms, C. E.

Checklist of parasites from catfishes of northeastern Kansas: V. 62, no. 4, p. 262, 1959.

Harned, C. H.

(and Chelikowsky, J. R.) The stratigraphic range of the Pennsylvanian-Permian disconformity in Pottawatomie County: V. 48, no. 3, p. 355–358, fig. 1, 1945.

Harnly, H. J.

1. "Cone-in-cone" (an impure calcite): V. 15, p. 22, 1898.
2. A provisional list of the flowering plants of McPherson County: V. 15, p. 75–78, 1898.
3. Double-tailed earthworm: V. 35, p. 99, 1932.
4. Vertebrate fossils from McPherson Equus beds: V. 35, p. 209, 1932.
5. Two pairs of testes in a white leghorn rooster: V. 36, p. 224, fig. 1, 1933.
6. Longevity in McPherson County: V. 37, p. 171, 1934.
7. Vertebrate fossils from McPherson *Equus* beds: V. 37, p. 151–152, 1934.

Harris, J. A.

Annotated catalogue of the cray fishes of Kansas: V. 17, p. 115, 1901.

Harris, John O.

1. The combination of dyes with growing, resting, and killed bacterial cells: V. 52, no. 3, p. 375–380, tables I–III, 1949.
2. The relationship between stage of growth and pigment production by *Pseudomonas aeruginosa*: V. 53, no. 4, p. 494–499, fig. 1–3, 1950.
3. See: Garrison, R. G.
4. (and Hein, R. E.; and McFarland, R. H.) Phosphate turnover studies with soil bacteria: V. 54, no. 4, p. 560–564, tables 1–4.
5. See: Peniston, Francis L. 1.
6. (and Kline, R. M.; and Crumpton, Carl F.) A study of the presence of hydrocarbon utilizing bacteria at the soil-asphalt interface of Kansas highways: V. 59, no. 4, p. 495–499, tables 1–2, 1956.
7. (and Worley, H. E.; McCaskill, G. A.; and Baldwin, L. K.) Preliminary studies of the effect of micro-organisms on physical properties of asphalts: V. 61, no. 1, p. 110–113, 1958.

8. Pipeline protective coating materials as growth substrates for soil microorganisms: V. 62, no. 1, p. 42–46, tables 1–3, 1959.
9. See: Kline, R. M.

Harshbarger, W. A.

1. Address of the retiring president: V. 27, p. 30–40, 1915.
2. The Kansas Academy of Science: V. 29, p. 35–51, 1920.

Hartman, Emily L.

The taxonomy and ecology of the *Equisetum laevigatum* complex: V. 61, no. 2, p. 125–148, 1958.

Hartman, Frank

1. The reaction of animal cells to chemical stimuli: V. 20, p. 43–49, graph 1, 1906.
2. Food habits of Kansas lizards and batrachians: V. 20, p. 226–229, 1907.
3. Collecting in Arkansas: V. 21, p. 215–218, 1908.

Hartman, Irene W.

See: Herrick, E. H. 5.

Hartnett, Andy

Theories and practice in very high frequency propagation, construction, and communication: V. 62, no. 1, p. 12–15, 1959.

Hase, Cecil L.

The effect of clipping weed competition upon the spread of pasture grass seedlings: V. 44, p. 104–115, tables 1–4, fig. 1–11, 1941.

Haskett, W. C.

1. (and Sill, W. H., Jr.; Johnston, C. O.; Hanson, E. D.; and Fellows, Hurley) Kansas phytopathological notes for 1954: V. 59, no. 1, p. 51–70, 1956.
2. See: Sill, W. H., Jr. 3.

Hastings, Claude E.

See: Cross, Frank B. 5.

Havenhill, L. D.

1. Relations of the new food and drug act to official preparations: V. 20, p. 44–47, 1907.
2. (and Hunter, O. W.) The influence of the separator upon the distribution of bacteria in milk and cream: V. 28, p. 61–69, tables 1–8, 1918.
3. Stramonium: V. 28, p. 181–183, 1918.
4. The cultivation of medicinal plants: V. 30, p. 33–39, 1922.
5. Kansas grown digitalis: V. 31, p. 47, 1926.
6. (and Blair, F. I.) An assay of stranomium: V. 52, p. 470–471, 1949.
7. See: Wedel, M. N. 1.

Hawkins, Paul W.

A comparative study of character and conduct among scouts and nonscouts in El Dorado, Kansas: V. 39, p. 159–163, table 1, 1937.

Hawley, J. E.

See: Shrenk, W. G. 2.

Haworth, Erasmus

1. Are there igneous rocks in Cherokee County: V. 8, p. 18–20, 1883.
2. The coal fields of Cherokee County: V. 8, p. 7–11, fig. 1 unnumbered, 1883.
3. Notes on Kansas minerals: V. 8, p. 25–26, 1883.
4. Octahedral limonite: V. 9, p. 25, 1885.

5. (and Bennett, John) The nomenclature of Kansas Coal—Measures employed by the Kansas State Geological Survey: V. 22, p. 71–85, 1908.
6. The life history of a river: V. 22, p. 51–70, 1909.
7. (and Young, C. M.) Preliminary report on an investigation of coal mine explosions: V. 22, p. 88–94, fig. 1–6, 1909.

Hay, Robert

1. Fossil wood: V. 8, p. 20–22, 1883.
2. The igneous rocks of Kansas: V. 8, p. 14–18, 1883.
3. In the Dacotah: V. 9, p. 109–113, 1885.
4. Notes on the fossil jaw of bison, from the Pliocene of Norton County: V. 9, p. 98, 1885.
5. Preliminary report on the geology of Norton County, Kansas: V. 9, p. 17–24, plates 1–2 unnumbered.
6. A geological section in Wilson County, Kansas: V. 10, p. 6–8, plates 1–2, unnumbered, 1887.
7. (and Thompson, A. H.) Historical sketch of geological work in the state of Kansas: V. 10, p. 45–52, 1887.
8. Natural gas in eastern Kansas: V. 10, p. 57–62, fig. 1 unnumbered, 1887.
9. Note on a habit of red ants: V. 10, p. 27–28, 1887.
10. Note on a remarkable fossil: V. 10, p. 128–219, plate unnumbered, 1887.
11. Report on geology: V. 10, p. 21–22, 1887.
12. Horizon of the Dacotah lignite: V. 11, p. 5–8, 1889.
13. The Triassic rocks of Kansas: V. 11, p. 38–39, 1889.
14. Artesian wells in Kansas and the causes of their flow: V. 12, p. 24–25, 1890.
15. Notes on some Kansas salt marshes: V. 12, p. 97–100, fig. 1 unnumbered, 1890.
16. Additional note on the Brenham meteorite: V. 13, p. 75, 1893.
17. Some characteristics of the glaciated area of northeastern Kansas: V. 13, p. 104–106, 1893.
18. Great Plains Academy of Science: V. 13, p. 3–6, 1893.
19. In Memoriam—Joseph Savage: V. 13, p. 64–68, 1893.
20. Note on the occurrence of granite in a deep boring in eastern Kansas: V. 13, p. 75–76, 1893.
21. Notes on some new species of fossil cephalopods: V. 13, p. 37–47, fig. 1–12, 1893.
22. Bibliography of Kansas geology with annotation: V. 13, p. 261–278, 1896.
23. On the eastern extension of Cretaceous rocks in Kansas and the formation of certain sandhills: V. 14, p. 227–229, 1896.
24. The river counties of Kansas, some notes of their geology and mineral resources: V. 14, p. 230–260, 1896.

Hayes, Wm. P.

1. A preliminary list of insects of the sorghum field: V. 30, p. 235–239, 1922.
2. Kansas Rhyncophora in the collection of the Kansas State Agricultural College: V. 30, p. 205–212, 1922.

See: McColloch, J. W. 1.
See: McColloch, J. W. 3.

Hays, Horrace A.

1. The effect of microclimate on the distribution of small mammals in a tall-grass prairie plot: V. 61, no. 1, p. 40–63, 1958.
2. See: Long, C. A.
3. See: Stockinger, N. F.

Heilbron, Richard

Learning by reward and punishment: V. 64, no. 2, p. 157–159, 1961.

Hein, R. E.

1. See: Harris, John O. 4.
2. Description and application of activation analysis: V. 60, no. 3, p. 320–323, table 1, 1957.

Hellmer, Leo A.

The effect of temperature on the behavior of the white rat: V. 44, p. 352–353, 1941.

Hempler, Sharon

The effect of darkness on the stomata of leaves: V. 65, no. 4, p. 470–472, fig. 1–2, 1962.

Hendrickson, Robert L.

(and Miller, W. A.) Some observations on the bacteria in frozen pork sausage: V. 53, no. 1, p. 70–74, fig. 1–2, 1950.

Hennes, John H.

See: Kundiger, Donald G.

Henry, Robert W.

(and Leonard, Guy William, Jr.) Hydrogen peroxide oxidation of tellurium dioxide: V. 59, no. 1, p. 28–31, table 1, 1956.

Hensley, M. Max

1. Notes on the natural history of *Heoderma suspectum*: V. 53, no. 2, p. 268–269, 1950.
2. Results of a herpetological reconnaissance in extreme southwestern Arizona and adjacent Sonora, with a description of a new subspecies of the Sonoran whipsnake, *Masticophis billineatus*: V. 53, no. 2, p. 270–288, 1951.
3. See: Smith, Phillip W.

Herbertson, James E.

See: Harman, Mary T. 12.

Hermanson, Joe L.

1. (and Thoson, John; and Sheets, John) Laboratory synthesis of 2,3 dichlorophenoxyacetic acid from urea: V. 51, no. 3, p. 333–339, 1948.
2. (and Olson, Robert) A laboratory synthesis of isopropyl phenyl carbonate from benzoyl chloride: V. 64, no. 3, p. 231–232, 1961.

Herrick, C. Judson

Recent advances in the study of the nervous system: V. 13, p. 70–73, 1893.

Herrick, Earl H.

1. Transplantation of ovaries in guinea pigs for reproduction and the endocrine effect during pregnancy: V. 31, p. 51–52, 1927.
2. Studies in human biology: V. 42, p. 451–455, graphs 1–5, 1939.
3. (and Lockhart, Charles H.) Comparison of the effects of two gonadotrophic hormones on immature fowl gonads: V. 44, p. 418–419, 1941.
4. (and Christensen, Bernice) Gonadotropic effects of capon and normal male blood serum: V. 46, p. 224–225, 1943.
5. (and Hartman, Irene W.) Reduced pituitary activity from the influence of sex hormones: V. 47, no. 2, p. 187–189, tables 1–3, fig. 1, 1944.
6. (and Elton, Richard L.) Desoxycorticosterone acetate in scorbutic guinea pigs: V. 59, no. 3, p. 339–342, 1956.
7. (and Storer, Richard S.) Work capacity of muscles from animals treated with male sex hormone: V. 51, no. 2, p. 203–206, 2 fig., 1 unnumbered table, 1948.
8. Another cat anomaly: V. 54, no. 4, p. 546–547, 1951.
9. Failure of ACTH to maintain the testes of hypophysectomized rats: V. 54, no. 2, p. 207–208, 1951.
10. (and McCormack, Shirley D.) The occurrence and nature of cysts in the pituitary glands of fowls and rats: V. 55, no. 2, p. 178–183, fig. 1–4, 1952.

11. (and Lockhard, C. H.; Martin, E. P.; and Nusser, W. L.) Influence of sex hormones on blood cell counts and hemoglobin levels in fowls: V. 57, no. 4, p. 483–492, fig. 1–8, table 1, 1954.
12. (and Vatne, R. D.) Influence of diethylstilbestrol, estradiol, and progesterone on Cowper's gland and seminal vesicles on wether sheep: V. 64, no. 3, p. 205–209, 1961.

Hershey, J. W.

1. A study of the components of air in relation to animal life: V. 31, p. 101–102, 1924–1928.
2. Physiological effects of oxygen atmospheres diluted by nitrogen: V. 32, p. 51–52, 1929.
3. Synthetic diamonds: V. 32, p. 52–54, 1929.
4. Animal life in synthetic mixtures of nitrogen and oxygen: V. 33, p. 133–135, fig. 1–2, 1930.
5. The effects of synthetic atmosphere upon animal life: V. 34, p. 240–243, fig. 1–3, 1931.
6. Synthetic atmospheric mixtures of carbon dioxide and oxygen in relation to animal life: V. 35, p. 141–143, 1932.
7. The effects of synthetic atmospheres of hydrogen and oxygen upon animal life: V. 36, p. 225–227, 1933.
8. Sex and the relative duration of white mice in pure oxygen: V. 36, p. 228–229, 1933.
9. The historical development of the relationship of gases to animal life: V. 37, p. 33–38, fig. 1, 1934.
10. (and Enberg, L. A.; and Devor, Arthur) The effects of synthetic atmospheres of nitrous oxid and oxygen upon animal life: V. 38, p. 157–162, 1935.
11. (and Assistants) Length of life for animals with food, but without water, and with water, but without food: V. 39, p. 275–276, 1937.
12. Recent work on synthetic diamonds: V. 40, p. 109–111, fig. 1, 1938.
13. (and Wagoner, Charles) Animal life in synthetic mixtures of nitrogen and oxygen under different conditions of relative humidity: V. 42, p. 217–219, 1939.
14. (and Hamersley, Jonathan; and Owen, LaRue) Notes on diamonds from McPherson College: V. 43, p. 213, 1940.
15. (and Achilles, Leland; Doll, Glenny; and Ebbert, Bernadine) Animal life in synthetic mixtures of nitrogen, oxygen, and water vapor: V. 45, p. 170–172, 4 unnumbered tables, 1942.

Hess, Robert H.

(and Taft, Robert) The electrodeposition of tin from solutions of its complex salts: V. 41, p. 171–173, tables 1–2, 1938.

Hetzer, William A.

1. (and Eaton, Theodore H.) Notes on the soil fauna of Cowley County, Kansas: V. 51, no. 2, p. 207–211, tables 1–4, 1948.
2. (and Volle, L. D.) Stomatal counts of Kansas species in certain genera of the Compositae: V. 53, no. 3, p. 370–371, 1950.
3. (and McGregor, R. L.) An ecological study of the prairie and pasture lands in Douglas and Franklin counties, Kansas: V. 54, no. 3, p. 356–369, 1951.
4. See: Volle, L. D. 1.

Heyne, E. G.

1. See: Schmidt, J. W. 1.
2. See: Jones, Elmer T. 6.
3. Earl G. Clark, Kansas farmer wheat breeder: V. 59, no. 4, p. 391–404, fig. 1–3, table 1, 1956.
4. See: Johnston, C. O. 10.

Hibbard, Claude W.

1. A revised check list of Kansas mammals: V. 36, p. 230–249, 1933.
2. Notes on some cave bats of Kansas: V. 37, p. 235–238, 1934.
3. Two new genera of Felidae from the Middle Pliocene of Kansas: V. 37, p. 239–256, fig. 1–5, plate IV–VI, tables 1–2, 1934.
4. The amphibians and reptiles of Mammoth Cave National Park proposed: V. 39, p. 277–281, 1937.
5. An Upper Pliocene fauna from Meade County, Kansas: V. 40, p. 239–265, plate I, fig. 3–9; plate II, fig. 10–14b; plate III, fig. 15–20; plate IV, fig. 21a–21e; plate V, fig. 22a–22c; fig. 1, 2, 1938.
6. Notes on some vertebrates from the Pleistocene of Kansas: V. 40, p. 233–238, fig. 1–4, plate 1, 1938.
7. Notes on additional fauna of Edson Quarry of the Middle Pliocene of Kansas: V. 42, p. 457–462, fig. 1–6, 1939.
8. Notes on some mammals from the Pleistocene of Kansas: V. 42, p. 463–470, fig. 1–22, plates I–V, table 1, 1939.
9. A new Pleistocene fauna from Meade County, Kansas: V. 43, p. 417–425, plates 1–3, fig. 1–11, 1940.
10. The occurrence of *Cervalces scotti* Lydekker in Kansas: V. 43, p. 411–415, plate 1, fig. 1–2; plate 2, fig. 1–2, 1940.
11. Mammals of the Rexroad fauna from the Upper Pliocene of southwestern Kansas: V. 44, p. 265–313, plate 1, fig. 1–4; plate 2, fig. 1–8; plate 3, fig. 1–4; plate 4, fig. 1–5, 1941.
12. A new fossil ground squirrel *Citellus* (*Pliocitellus*) *fricki* from the Pliocene of Clark County, Kansas: V. 45, p. 253–257, plate I, fig. 1–5; plate II, fig. 1–3, 1942.
13. The occurrence of *Eucastor tortus* Leidy in Phillips County, Kansas: V. 45, p. 248–252, plate I, 1942.
14. *Etadonomys*, a new Pleistocene heteromyid rodent, and notes on other Kansas mammals: V. 46, p. 185–191, plate I, fig. 1–9, 1943.
15. A check list of Kansas mammals, 1943: V. 47, no. 1, p. 61–88, 1944.
16. (and Graffham, Allen) *Micropycnodon*, new name of *Pycnomicrodon* Hibbard and Graffham not Hay: V. 47, no. 3, p. 404, 1945.
17. An antilocaprid from the lower Pliocene from Beaver County, Oklahoma: V. 54, no. 3, p. 387–390, fig. 1, 1951.
18. A contribution to the Rexroad fauna: V. 55, no. 2, p. 196–208, fig. 1–3, 1952.
19. *Equus* (*Asinus*) *calobatus* Troxell and associated vertebrates from the Pleistocene of Kansas: V. 56, no. 1, p. 111–126, fig. 1–3, 1953.
20. Second contribution to the Rexroad fauna: V. 57, no. 2, p. 221–237, 1954.
21. Notes on Late Cenozoic shrews: V. 60, no. 4, p. 327–336, fig. 1–3, 1957.

Hiebert, Erwin N.

See: Taft, Robert 9.

Higginbottom, H. H.

See: Peterson, J. C. 4.

Hill, Bruce V.

Determination and comparison of sound intensities: V. 20, p. 88–91, 1907.

Hill, J. W.

1. Theories of Liesegang's rings: V. 34, p. 303–310, tables 1–3, 1931.
2. See: Taft, Robert 4.

Hill, Mrs. Noblesse DeMoss

Biological and taxonomic observations on the mosquitoes of Kansas: V. 42, p. 255–269, table I, 1939.

Hillman, Hoyt

Separation of the chlorophyll pigments: V. 64, no. 2, p. 162–164, 1961.

Hills, Jack

The rotational period of Jupiter: V. 64, no. 3, p. 269–273, fig. 1–4, 1961.

Hilton, H. R.

The rainfall in its relation to Kansas farming: V. 7, p. 37–46, 1881.

Hinckley, H. V.

Atlantic vs. Pacific elevations in Kansas: V. 10, p. 53–57, 1887.

Hitchcock, A. S.

1. The distribution of the genus *Vitis* in Kansas: V. 13, p. 79–80, 1893.
2. The relations of the composite flora of Kansas: V. 13, p. 89–91, 1893.
3. The grasses of Kansas: V. 14, p. 135–149, fig. 1–26, 1896.
4. Additions to "The Grasses of Kansas": V. 15, p. 59–60, 1898.
5. List of plants in my Florida herbarium: V. 16, p. 108–157, 1899.
6. A brief outline of ecology: V. 17, p. 28–34, 1901.
7. Plants in my herbarium, part II: V. 17, p. 79–105, 1901.

Hoad, W. C.

1. Effect of clay and loam on strength of Portland cement mortars: V. 19, p. 81–85, fig. 1–2, tables 1–3, 1905.
2. (and Mann, A. H.) Gagings of sewage flow at Lawrence, Kansas: V. 20, p. 281–283, 1907.

Hoag, Leverett P.

Physical factors of environment in relation to cash crop areas in the Midwest: V. 60, no. 3, p. 316–319, 1957.

Hodge, Harold Carpenter

1. The color record of qualitative analysis in the laboratory: V. 34, p. 38, 1931.
2. The project method in advanced inorganic chemistry: V. 34, p. 38, 1931.
3. The properties of strontium-cadmium alloys: V. 34, p. 39, 1931.
4. See: Homan, T. B. 1.
5. See: Homan, T. B. 2.

Hoecker, Frank E.

See: Wilkerson, Paul N. 1.

Hoffmeister, Donald F.

1. Early observations on the elk in Kansas: V. 50, no. 1, p. 75–76, 1947.
2. (and Kennedy, Charles D.) The *nutria*, a South American rodent, in Kansas: V. 49, no. 4, p. 445–446, fig. 1, 1947.
3. See: Dalquest, Walter W. 2.

Hogue, Mary Evelyn

The sweet potato, stem or root? V. 34, p. 107–108, 1931.

Hollingsworth, Irene

See: Ekstein, Rudolf 3.

Holman, Myrna

See: McCammon, Ruth 1.

Holmes, F. O.

(and Cady, H. P.) A study of liquid junction potentials: V. 43, p. 215–225, fig. 1, tables 1–3, 1940.

Homan, T. B.

1. (and Hodge, Harold Carpenter) Further studies of the reliability of examination marks in general chemistry: V. 34, p. 39, 1931.

2. (and Hodge, Harold C.) A study of the reliability of examination marks in general chemistry II, an objective examination: V. 37, p. 133–134, table 1, 1934.

Hood, George J.

An autographic recording instrument for tension tests: V. 19, p. 86–89, fig. 3–4, plate no. 7, 1905.

Hooper, W. H.

The industrial therapy program at Topeka State Hospital: V. 55, no. 1, p. 87–91, 1952.

Hopka, Erich

Correlation of college freshman chemistry marks with some California mental maturity test scores: V. 55, no. 4, p. 465–467, tables 1–2, 1952.

Hopkins, Harold H.

1. Variations in the growth of sideoats grama grass at Hays, Kansas, from seed produced in various parts of the Great Plains Region: V. 44, p. 86–95, tables 1–6, fig. 1–7, 1941.
2. (Albertson, F. W.; and Riegel, Andrew) Some effects of burning upon a prairie in west-central Kansas: V. 51, no. 2, p. 131–141, tables I–III, fig. 1–7, 1948.
3. (Albertson, F. W.; and Riegel, D. A.) Ecology of grassland utilization in a mixed prairie: V. 55, no. 4, p. 395–418, fig. 1–9, 1952.
4. Native vegetation of the Loess Hills–Sandhills ecotone in central Nebraska: V. 55, no. 3, p. 267–277, tables 1–2, fig. 1–3, 1952.
5. Wind injury to trees at Hays, Kansas: V. 55, no. 1, p. 98–100, table 1, 1952.
6. Literature of the vegetation of Kansas: V. 58, no. 2, p. 171–195, 1955.
7. Effects of mulch on yield and cover in mixed prairie: V. 59, no. 1, p. 71–75, tables 1–3, 1956.
8. (and Tomanek, G. W.) A study of the woody vegetation at Cedar Bluff Reservoir: V. 60, no. 4, p. 351–359, table 1, 1957.
9. See: Lippert, Robert D.
10. See: Riegel, Andrew 8.
11. See: Dodd, J. D.
12. See: Knoll, G.

Horn, C. H.

See: LeConte, J. L. 1.

Horn, Elsa

1. Some aspects of hay fever: V. 32, p. 85–87, 1929.
2. A summer hay fever plant survey of Manhattan, Kansas: V. 36, p. 91–97, 1933.

Horne, LeRoy

See: Perkins, Alfred T. 6.

Horner, Sister Agnes Marie

See: Brewster, R. Q. 3.

Horning, Edward J.

(and Marsi, Kenneth L.) 1-phenyl-3-(p-chlorophenyl)-2-propanol and derivatives: V. 65, no. 1, p. 44–46, 1962.

Horr, W. H.

1. The flora of "Rock City": V. 40, p. 193–194, 1938.
2. A rapid plant dryer: V. 50, no. 2, p. 191–193, plate 1A–1B, 1947.
3. (and McGregor, R. L.) Kansas plants new to Kansas herbaria II: V. 50, no. 2, p. 200–201, 1947.

4. (and McGregor, R. L.) A raised marsh near Muscotah, Kansas: V. 51, no. 2, p. 197–200, fig. 1, 1948.
5. (and McGregor, R. L.) Kansas plants new to Kansas herbaria IV: V. 52, no. 3, p. 346–349, 1949.
6. Techniques in preparing herbarium specimens: V. 52, no. 2, p. 258, 1949.
7. (and McGregor, R. L.) Kansas plants new to Kansas herbaria VI, including a new form of *Liatris punctata*: V. 54, no. 2, p. 212–217, 1951.
8. (and McGregor, R. L.) Kansas plants new to Kansas herbaria VII, including a new form of *Zinnia grandiflora* and *Petalostemum purpureum*: V. 55, no. 2, p. 172–175, 1952.
9. See: McGregor, R. L. 4.
10. See: McGregor, R. L. 7.
11. See: McGregor, R. L. 8.

Hortleder, Alma

Some anatomical features of *Sorbopyrus auricularis*: V. 33, p. 29–30, 1930.

Houston, Mariam Hill

(and Fletcher, Hazel) The effect of light and of heat on the breaking strength, color, and copper number of viscose, cellulose acetate, and cuprammonium rayon fabrics: V. 43, p. 309–311, fig. 1–3, 1940.

Hovey, Horace C.

Brachiospongia: V. 3, p. 111–113, fig. 1–2, unnumbered, 1874.

Howieson, John L.

(and Roofe, Paul G.) Some effects of X-radiation on intestinal photophatase in the mouse: V. 56, p. 330–340, table 1, 1953.

Hoyle, William Luther

1. Notes on faunal collecting in Kansas: V. 39, p. 283–293, 1937.
2. Drought in Cowley County, Kansas: V. 31, 1936, V. 40, p. 211–214, charts 4 unnumbered, 1938.
3. Transmission of poultry parasites by birds with special reference to the "English" or house sparrow and chickens: V. 41, p. 379–384, 1938.
4. See: Burt, Charles E. 2.

Hoyt, W. F.

1. Recent advances in astronomy: V. 19, p. 365–373, 1905.
2. The use and care of reflecting telescopes: V. 19, p. 360–364, plate 30, 1905.
3. Scientific fallacies and frauds: V. 21, p. 229–236, 1908.

Hubbard, A. K.

Note on certain formulas for the design of reenforced concrete beams: V. 20, p. 217–227, fig. 1–2, 1906.

Hubbs, Carl L.

Identification of cyprinid fish reported from Kansas as *Squalius elongatus*: V. 54, no. 2, p. 190–192, 1951.

Hudiburg, Leo E.

Investigation of resonance curve with respect to variation of capacity: V. 34, p. 276–281, fig. 1–10, 1931.

Huffman, Elmo W.

Relationship of barometric pressures to fishing condition: V. 45, p. 358–362, tables 1–4, charts 1–2, 1942.

Huffman, M. D.

(and Johnston, C. O.) Prevalence and distribution of physiologic races of the leaf rust of wheat in Kansas: V. 55, p. 419–426, fig. 1–4, tables 1–4, 1952.

Huggins, George F.
See: Gier, L. J. 17.

Hughbangs, Leroy
The Earth-Moon theory: V. 30, p. 214–220, 1922.

Hughes, J. S.
Discoveries in physical sciences having social significance: V. 51, p. 453–463, fig. I–III, 1948.

Huheey, James E.
See: Smith, H. M. 22.

Hulett, Gary K.
(and Tomanek, G. W.) Effects of some environmental factors on germination of salt cedar (*Tamarix pentandra* Pall.): V. 64, no. 2, p. 96–101, fig. 1, 1961.

Hulicka, Irene Macintosh
(and Davis, Kendall; Edwards, Phillip; and Locke, Billy J.) Spontaneous recovery: V. 61, no. 1, p. 118–124, 1958.

Humphreys, Herbert
Semiotic and psychology: V. 44, p. 354–357, 1941.

Hungerford, H. B.
1. Relation of entomology to the war effort: V. 46, p. 303–308, 1943.
2. (and Spangler, Paul J.; and Walker, Neil A.) Subaquatic light traps for insects and other animal organisms: V. 58, no. 3, p. 387–407, charts 1–3, fig. 1–2.

Hunter, O. W.
1. (and Bushnell, L. D.) The microbial flora of graded cream: V. 28, p. 69–76, tables 1–13, 1918.
2. See: Havenhill, L. D. 2.

Hunter, S. J.
1. Notes on the corn-root worm: V. 13, p. 131–133, 1893.
2. Notes on injurious insects: V. 15, p. 50–53, 1898.

Hutchinson, C. C.
The climate of Kansas, 1871: V. 51, no. 1, p. 16, 1948.

Hyde, Ernest B., Jr.
See: Taft, Robert 44.

Imler, Ralph H.
An annotated list of the birds of Rooks County, Kansas, and vicinity: V. 39, p. 295–312, fig. 1–3, 1937.

Ingram, Clena V.
(and Geldriech, Edward W.) Fascist attitudes of K.S.T.C. students at Emporia: V. 46, p. 204–211, tables I–IV, fig. 1, 1943.

Ingram, I. D.
Preliminary list of Kansas fishes: V. 9, p. 69–78, 1885.

Irvine, R.
Technique, interpretation, and a practical application of nuclear emulsions: V. 62, no. 4, p. 236–244, table 1, 1959.

Isely, F. B.
Notes on Kansas Orthoptera: V. 19, p. 238–249, 1905.

Jackson, D. C., Jr.

(and Farber, L. M.) A high-voltage electrostatic generator Van de Graaff type: V. 38, p. 225–229, fig. 1 unnumbered, 1935.

Jackson, H. L.

See: Bailey, E. H. S. 33.

Jacobson, Leone

An evaluation of Beck's Rorschach norms as applied to children: V. 41, p. 257–258, 1938.

Jakeway, George E.

Pleistocene Lagomorpha and Rodentia from the San Josecite Cave, Nuevo Leon, Mexico: V. 61, no. 3, p. 313–328, 1958.

James, Louis F.

See: Smith, Hobart M. 17.

Jameson, E.

Geology of the Leavenworth prospect well: V. 11, p. 37–38, 1889.

Janes, D. W.

Echo-location failure and a late seasonal record for the red bat in Kansas: V. 62, no. 4, p. 263–264, 1959.

Jenks, G. F.

1. See: Kollmorgen, Walter M. 1.
2. See: Kollmorgen, Walter M. 2.

Jennings, Dolf

1. Fall food habits of the bobwhite quail in eastern Kansas: V. 44, p. 420–426, tables 1–3, 1941.
2. The food of twenty-two mourning doves taken during the 1940 hunting season: V. 44, p. 427–428, tables 1–2, 1941.
3. Kansas fish in the Kansas State College Museum at Manhattan: V. 45, p. 363–366, table I, 1942.

Jennings, T. B.

1. A preliminary study of "hot winds": V. 12, p. 10–12, 1890.
2. Review of the crop season of 1902: V. 18, p. 234–239, 1903.
3. The climatology of Kansas: V. 20, p. 273–276, 1907.

Jewell, Mrs. E. C.

A list of some of the larger fungi in the Blue River Valley: V. 7, p. 128–129, 1881.

Jewell, Minna E.

The genera of North American fresh-water sponges *Paramcyenia*, new genus: V. 55, no. 4, p. 445–457, 1952.

Jewett, J. J.

1. The Spanish Peaks: V. 18, p. 73–77, 1903.
2. Notes on the topography and geology of New Mexico: V. 19, p. 141–149, plate 15, 1905.
3. The modulus of lunar influence not in a lifting, but in a falling movement: V. 20, p. 56–62, 1907.

Jewett, John M.

1. Evidence of cyclic sedimentation in Kansas during the Permian period: V. 36, p. 137–140, fig. 1–2, 1933.
2. Some details of the stratigraphy of the Bronson Group of the Kansas Pennsylvanian: V. 36, p. 131–136, fig. 1–2, 1933.

3. A newly found locality of glacial striae south of the Missouri River: V. 37, p. 153–154, 1934.
4. Some measurements at the Sun City natural bridge: V. 38, p. 189–190, 1935.
5. (and Williams, Chas. C.) Water resources of Johnson County during the drought of 1934: V. 38, p. 191–198, fig. 1–11, 1935.
6. Shallow aquifers in eastern Kansas: V. 42, p. 339, 1939.
7. The geologic making of Kansas (Presidential address, 1961): V. 64, no. 3, p. 175–197, fig. 1–7, table 1, 1961.
8. (and Schoewe, W. H.) Conference on Science and Industry—explanatory remarks: V. 65, no. 1, p. 1–3, 1962.
9. Concept of time in stratigraphic classification: V. 65, no. 2, p. 97–109, 1962.

Johnson, Donald M.

A suggestion for the analysis of intellectual ability: V. 44, p. 358–362, 1941.

Johnson, E. W.

See: Myers, H. E. 1.

Johnson, Geo. E.

1. Early life of the thirteen-lined ground squirrel: V. 34, p. 282–290, fig. 1–14, tables 1–2, 1931.
2. A study of financing Academies of Science: V. 35, p. 34–37, 1932.
3. (and Foster, Mark; and Coco, Russell M.) The sexual cycle of the thirteen-lined ground squirrel in the laboratory: V. 36, p. 250–269, fig. 1–16, tables 1–2, 1933.

Johnson, H. B.

1. See: Andrews, A. C. 1.
2. See: Andrews, A. C. 4.

Johnson, Irving S.

The demonstration of a "Host-Factor" in commensal crabs: V. 55, no. 4, p. 458–464, fig. 1, tables 1–3, 1952.

Johnson, Martha

See: Gier, L. J. 13.

Johnson, Otis

A preliminary report on the thermo- and actino-electric properties of molybdenite: V. 33, p. 65–71, fig. 1–7, 1930.

Johnson, Sam H.

(and Brewster, Ray Q.) The bromination of phenol and the cresols in various solvents: V. 53, no. 3, p. 398–403, fig. 1–2, tables 1–5, 1950.

Johnson, W. J.

(and Shrenk, W. G.) The effect of fertilizer treatment on the composition of wheat at different stages of growth in southeastern Kansas: V. 56, no. 4, p. 456–464, fig. 1–2, tables 1–4, 1953.

Johnston, C. O.

1. (and Parker, John H.) *Aegilops cylindrica* Host., a wheat field weed in Kansas: V. 32, p. 80–84, fig. 1, 1929.
2. Some new unusual disease developments on wheat in Kansas: V. 33, p. 31–40, table 1, 1930.
3. (Lefebvre, C. L.; and Hansing, E. D.) Kansas mycological notes, 1936: V. 40, p. 69–74, 1938.
4. (and Brooks, Travis E.) Kansas mycological notes, 1937: V. 41, p. 121–123, 1938.
5. Some species of triticum and related grasses as hosts for the leaf rust of wheat, *Puccinia triticina* Eriks: V. 43, p. 121–132, 1940.

6. Notes on plant diseases in Kansas in 1941: V. 45, p. 107–110, 1942.
7. (and Hansing, E. D.; Melchers, L. E.; and Fellows, H.) Kansas phytopathological notes, 1950: V. 55, p. 104, 112, 1952.
8. (and Hansing, E. D.) Kansas phytopathological notes, 1952: V. 57, no. 1, p. 69–72, 1954.
9. (and Hansing, E. D.; Sill, W. H.; Haskett, W. C.; and Rogerson, C. T.) Kansas phytopathological notes, 1955: V. 60, no. 2, p. 148–154, 1957.
10. (and Heyne, E. G.) Distribution of jointed goatgrass (*Aegilops cylindrica* Host.) in Kansas: V. 63, no. 4, p. 239–242, 1960.
11. (and Hansing, E. D.; Sill, W. H., Jr.; Duffield, P. C.; Kramer, C. L.; and King, C. L.) Kansas phytopathological notes, 1958: V. 64, no. 2, p. 102–109, 1961.
12. See: Hansing, E. D. 2.
13. See: Hansing, E. D. 3.
14. See: Hansing, E. D. 4.
15. See: Hansing, E. D. 5.
16. See: Hansing, E. D. 6.
17. See: Hansing, E. D. 7.
18. See: Huffman, M. D. 1.
19. See: Lefebvre, C. L. 1.
20. See: Lefebvre, C. L. 2.
21. See: Lefebvre, C. L. 3.
22. See: Pady, Stuart M. 4.
23. See: Pady, Stuart M. 5.
24. See: Reitz, L. P. 2.
25. See: Schmidt, J. W. 1.
26. See: Sill, W. H., Jr. 3.
27. See: Sill, W. H., Jr. 6.

Johnston, Milford W.

(and Dress, Linus S.; and Zinszer, H. A.) Radioactivity of oil-well drilling fluid with depth of well: V. 54, no. 1, p. 88–93, fig. 1–3, 1951.

Jones, A. W.

1. The Mentor beds: V. 15, p. 111–112, 1898.
2. New developments in the Mentor beds: V. 16, p. 65–66, 1899.
3. Further studies in the Mentor beds: V. 18, p. 104–105, 1903.
4. The fauna of the Mentor: V. 19, p. 122, 1905.
5. The flood of 1903 in central Kansas: V. 19, p. 138–140, 1905.

Jones, Don C.

See: Gier, L. J. 14.

Jones, Elmer T.

1. Differential resistance to chinch-bug attack in certain strains of wheat: V. 40, p. 135–142, fig. 1, 1938.
2. Parasite emergence holes as an aid in determining Hessian fly infestation in mature wheat plants: V. 41, p. 181–182, fig. 1, 1938.
3. A discussion of Hessian fly resistance in certain wheat varieties: V. 43, p. 234–265, plate 1–7, fig. 1–22, tables 1–4, 1940.
4. (and Piper, Perry A.) Insect photography with limited equipment: V. 47, no. 2, p. 275–282, plate I, fig. A–K; plate II, fig. 1–13, 1944.
5. A simplified percentage table of whole number 1–100: V. 47, no. 3, p. 359, unnumbered illustration, 1945. See also Appendix A.
6. (Heyne, E. D.; and Schmidt, J. W.) A new source of wheat jointworm resistance in wheat: V. 55, no. 4, p. 427–430, fig. 1, table 1, 1952.

Jones, Frank E.

The medullary ray as an element of strength in structural timber: V. 22, p. 386–388, 1909.

Jones, J. Russell

See: Lowen, S. L. 3.

Jones, J. Knox, Jr.

1. (and Loomis, Richard B.; Krutzsch, Philip H.; and Webb, Olin L.) New records of bats from northeastern Kansas, with notes on the bat chigger, *Euschongastia pipistrelli* (Acarina, Trombiculidae): V. 55, no. 3, p. 312–314, 1952.
2. (and Loomis, Richard B.) Additional records of the spotted ground squirrel and black-footed ferret in Kansas: V. 56, no. 1, p. 107, 1953.
3. (and Findley, James S.) Geographic distribution of the short-tailed shrew, *Blarina brevicauda*, in the Great Plains: V. 57, no. 2, p. 208–211, fig. 1, table 1, 1954.
4. Checklist of mammals of Nebraska: V. 60, no. 3, p. 273–282, 1957.
5. A dental abnormality in the shrew, *Crocidura lassiura*: V. 60, no. 1, p. 88–89, fig. 1, 1957.
6. (and Cortner, G. L.) The subspecific identity of the gray squirrel (*Sciurus carolinensis*) in Kansas and Nebraska: V. 63, no. 4, p. 285–288, 1960.
7. See: Findley, James S. 1.
8. See: Russell, Robert J. 1.

Jones, Lanny D.

(and Sullivan, Eugene) Studies of food plot utilization by prairie chickens: V. 65, no. 3, p. 266–274, fig. 1–2, 1962.

Jones, M. M.

1. See: Gallup, G. A. 1.
2. See: Gilkerson, W. R. 1.

Kaiser, Charles P.

See: Frye, John C. 1.

Kaplanis, John N.

(and Louloudes, S. J.; and Roan, C. C.) The distribution and excretion of P^{32} labeled diazinon in guinea pigs: V. 65, no. 1, p. 70–75, fig. 1–3, 1962.

Kass, Walter

1. (and Ekstein, Rudolf) Thematic apperception test diagnosis of Nazi war criminal: V. 51, no. 3, p. 344–350, tables 1–2, 1948.
2. Wechsler's mental deterioration index in the diagnosis of organic brain disease: V. 52, no. 1, p. 66–70, tables I–II, 1949.
3. When psychological tests do not detect test-detectable brain damage—a case report: V. 58, no. 3, p. 424–429, tables 1–2, 1955.

Kedzie, W. K.

1. On the tin "salting" enterprises in the United States: V. 3, p. 106–111, 1874.
2. The Nebraska hot bluff: V. 4, p. 10–13, 1875.
3. Ozone in Kansas atmosphere: V. 4, p. 4–10, 1875.
4. The Iola (Kansas) mineral well: V. 6, p. 58–61, 1878.
5. Ozone in Kansas atmosphere: V. 6, p. 18–25, fig. 1–5 unnumbered, 1878.

Keith, B. Ashton

1. Relationships of certain recognized lines of weakness in Kansas to the giant zones of epeirogenic activity, the megashears: V. 42, p. 341–343, 1939.
2. The Arizona jay, *Aphelocoma sieberri arizonae*, found in Kansas: V. 43, p. 427, 1940.
3. Notes on mental and physical control observed in birds: V. 45, p. 367–368, 1942.
4. A suggested classification of Great Plains dust storms: V. 47, no. 1, p. 95–110, fig. 1–4, 6–11, 1944.

Kellerman, W. A.

1. A partial list of the Kansas parasitic fungi, together with their host-plants: V. 9, p. 79–86, 1885.
2. (and Kellerman, Mrs. W. A.) The Kansas forest trees identified by leaves and fruit: V. 10, p. 99–111, 1887.
3. (and Carleton, A. M.) Second list of Kansas parasitic fungi, together with their host-plants: V. 10, p. 88–99, fig. 1–27, 1887.
4. An artificial key to Kansas grasses: V. 11, p. 87–101, 1889.
5. On the germination of Indian corn after immersion in hot water: V. 12, p. 134–140, table 1 unnumbered, 1890.
6. Notes on the distribution and ravages of the hackberry branch knot: V. 12, p. 101–104, fig. 1–2 unnumbered, 1890.
7. (and Swingle, W. T.) Notes on sorghum smuts: V. 12, p. 158–159, plate 1 unnumbered, 1890.
8. Observations on the mutations of sunflowers: V. 12, p. 140–158, fig. 1–40, 1890.

Kellerman, Mrs. W. A.

1. Evolution in leaves: V. 12, p. 168–173, fig. 1–38.
2. See: Kellerman, W. A. 2.

Kellogg, V. L.

1. (and Slosson, E. E.) A comparison of preservative fluids for museum use: V. 12, p. 83, 1890.
2. Notes on some summer birds of Estes Park, Colorado: V. 12, p. 86–90, 1890.
3. Some notes on the Mallophaga: V. 12, p. 46–48, 1890.
4. Insect notes: V. 13, p. 112–115, fig. A–D, 1893.
5. Notes on the elementary comparative external anatomy of insects: V. 13, p. 111–112, 1893.
6. Additions to Goss's revised catalogue of the birds of Kansas: V. 15, p. 15–18, 1893.
7. See: Sayre, L. E.

Kelly, D. S.

1. Coal measures of Lyon County: V. 10, p. 45, 1887.
2. Science in the public schools: V. 15, p. 42–45, 1898.

Kelly, E. G.

1. See: Smith, Roger C. 5.
2. See: Smith, Roger C. 6.
3. See: Smith, Roger C. 10.
4. See: Smith, Roger C. 11.

Kelly, F. J.

Scientific measurements of the achievements of pupils: V. 30, p. 139–142, 1922.

Kennedy, Charles D.

See: Hoffmeister, Donald F. 2.

Kennedy, Ellen

See: Gier, L. J. 16.

Kenoyer, Leslie A.

Winter conditions of lenticels: V. 22, p. 323–326, 1909.

Keroher, Grace C.

1. Preliminary report on insoluble residues of the Missouri series in eastern Kansas: V. 42, p. 345–355, fig. 1–2, plate I with unnumbered figures; plate II with three unnumbered figures; unnumbered chart, 1939.
2. See: Schoewe, W. H. 15.

Keroher, R. P.
See: Schoewe, W. H. 15.

Kester, F. E.
The Whittaker quantum mechanism: V. 38, p. 231–232, 1935.

Keurst, Arthur John
The knowledge of the scientific method among college students: V. 42, p. 407–415, tables I–IV, 1939.

Keys, Charles E.
Observations on the seed and germination of *Setaria italica* (L.) Beauv.: V. 52, no. 4, p. 474–477, plate I, fig. 1–8; plate II, fig. 9–11, 1949.

Kidman, Roy L.
See: Lokke, D. H. 2.

Killian, Edward A.
Observations on the divining-rod: V. 11, p. 114–115, 1889.

Kimbell, Bertha S.
Conorhinus sanguisugus—habits and life history: V. 14, p. 128–131, fig. 1 unnumbered, 1896.

Kimpel, Ben F.
The function of feeling in adjustment: V. 40, p. 315–317, 1938.

Kinfi, C. L.
See: Sill, W. H., Jr. 6.

King, Claude L.
1. See: Hansing, E. D. 5.
2. See: Hansing, E. D. 15.
3. See: Johnston, C. O. 25.
4. See: Sill, W. H., Jr. 6.
5. See: Sill, W. H., Jr. 7.

King, Harold C.
Cover restoration in Kansas: V. 52, no. 3, p. 360–362, 1949.

King, H. H.
1. See: Caldwell, M. J. 1.
2. See: Perkins, A. T. 3.
3. See: Perkins, A. T. 4.
4. See: Perkins, A. T. 6.
5. See: Perkins, A. T. 7.
6. See: Smith, F. M. 1.

King, Otis M.
An ecological study of the Norway rat and the house mouse in a city block in Lawrence, Kansas: V. 53, no. 4, p. 500–528, tables 1–9, fig. 1–10, 1950.

Kingsley, Eunice L.
The relation of certain morphological characters of the host fungus to the identification of the loose and covered smuts of oats: V. 36, p. 98–104, 1933.

Kinney, E. D.
Gold prospects in Kansas: V. 37, p. 155–156, 1934.

Kinsley, A. T.

See: Willard, J. T. 10.

Kline, R. M.

(and Harris, J. O.) A study of adsorption of calcium and hydrogen ions by Azotobacter agile: V. 64, no. 1, p. 16–22, plates 1–2, fig. 9, 1961.

Klopper, John H.

A most wonderful tool: V. 20, p. 52–55, 1907.

Knaus, Warren

1. Additions to the catalogue of Kansas Coleoptera for 1883 and 1884: V. 5, p. 57–61, 1885.
2. On some salt marsh Coleoptera: V. 9, p. 64–65, 1885.
3. Additions for 1885–1886, to the list of Kansas Coleoptera: V. 10, p. 86–88, 1887.
4. Sand-dune collecting: V. 14, p. 126–127, 1896.
5. Additions to the list of Kansas Coleoptera: V. 15, p. 18–20, 1898.
6. Collecting notes on Kansas Coleoptera: V. 16, p. 197–199, 1899.
7. Additions to the list of Kansas Coleoptera for the years 1899 and 1900: V. 17, p. 109–114, 1901.
8. Additions to the list of Kansas Coleoptera for 1901 and 1902: V. 18, p. 187–190, 1903.
9. Additions to the list of Kansas Coleoptera for 1903–1904: V. 19, p. 218–220, 1905.
10. Additions to the list of Kansas Coleoptera, 1905: V. 20, p. 106–107, 1906.
11. Additions to the list of Kansas Coleoptera, 1906: V. 20, p. 233–234, 1907.
12. Additions to the list of Kansas Coleoptera, 1907: V. 21, p. 150–151, 1908.
13. Coleoptera of New Mexico: V. 21, p. 152–154, 1908.
14. Additions to the list of Kansas Coleoptera, 1908: V. 22, p. 351–352, 1909.
15. Additions to the list of Kansas Coleoptera, 1909: V. 23, p. 108, 1909.
16. Additions to the list of Kansas Coleoptera for 1910–1912: V. 26, p. 89–93, 1914.
17. Additions to the list of Kansas Coleoptera, 1913–1915: V. 28, p. 261–263, 1918.

Knerr, E. B.

1. An astronomical lantern: V. 13, p. 58, 1893.
2. All energy is kinetic: V. 13, p. 30–33, 1893.
3. *Erythronium mesochoreum*, n. sp.: V. 13, p. 20–21, 1893.
4. The formation of Doniphan Lake, in the spring and early summer of 1891: V. 13, p. 47–48, fig. 13, 1893.
5. An inexpensive reagent bottle, of service in microscopic work: V. 13, p. 23–25, fig. 1–2, 1893.
6. Notes on a pink barite from Atchison limestone: V. 13, p. 76, 1893.
7. Notes on "Mountain Leather" from Red Rock Canon, Colorado: V. 13, p. 70, 1893.
8. A variety of *Ampelopsis quinquefolia*: V. 13, p. 69–70, 1893.
9. Coal in Atchison County, Kansas: V. 14, p. 216–217, 1896.
10. Atchison and Nemaha county mineral waters: V. 15, p. 88–89, 1898.
11. Barite nodules in wood: V. 15, p. 80–81, 1898.
12. The propogation of erythroniums: V. 15, p. 73–75, 1898.
13. Concretions: V. 16, p. 44–46, 1899.
14. Relativity in science: V. 16, p. 35–37, 1899.
15. Silico-barite nodules from near Salina, Kansas: V. 16, p. 43–44, fig. 1 unnumbered, 1899.
16. The Muscotah artesian wells: V. 17, p. 53, 1901.
17. A theory of the cosmos: V. 17, p. 20–27, 1901.
18. Distinguishing red and white oak lumber by chemical analysis of their ash: V. 18, p. 61, 1903.
19. Coal mining in Atchison County: V. 19, p. 105–106, 1905.

Knight, G. L.

Volcanic ash in Norton County, Kansas: V. 34, p. 166–167, 1931.

Knoll, George

(and Hopkins, H. H.) The effects of grazing and trampling upon certain soil properties: V. 62, no. 4, p. 221–231, tables 1–4, 1959.

Knox, M. V. B.

1. Calamites: V. 4, p. 17–18, 1875.
2. Kansas Mammalia: V. 4, p. 19–22, 1875.
3. Additions to Kansas Mammalia: V. 5, p. 65, 1877.
4. Climate and brains: V. 5, p. 5–10, 1877.

Kobler, Arthur

See: Ekstein, Rudolf 3.

Kolling, Orland W.

1. (and Schultz, P. Daniel) The diffusion of organic dyes in gelatin gel: V. 50, no. 1, p. 87–88, 1 unnumbered table, 1947.
2. Preparation of some chlorine compounds of rhenium: V. 56, no. 3, p. 378–381, 1953.
3. Reduction of perrhenate by stannous tin: V. 57, no. 4, p. 520–524, fig. 1, 1954.
4. Thiocyanate complexation of molybdenum in solution of reduced molybdate: V. 58, no. 3, p. 430–434, fig. 1, 1955.
5. Influence of water on titrations in glacial acetic acid: V. 59, no. 4, p. 422–426, fig. 1–2, table 1, 1956.
6. Potentiometric evidence for solvolysis of salts in glacial acetic acid: V. 62, no. 1, p. 62–66, tables 1–2, 1959.
7. The effects of salts on acid-base indicators in glacial acetic acid: V. 63, no. 2, p. 67–71, 1960.
8. A review of organosulfur derivatives of hydrogen sulfide as reagents for inorganic quantitative analysis: V. 64, no. 4, p. 335–343, plate 1, 1961.

Kollmorgen, Walter M.

1. (and Jenks, George F.) A geographic study of population and settlement changes in Sherman County, Kansas: V. 54, p. 449–494, fig. 1–16, tables 1–11, 1951.
2. (and Jenks, George F.) A geographic study of population and settlement changes in Sherman County, Kansas, Part II, Goodland, Part IV: V. 55, no. 1, p. 1–36, fig. 1–26, tables 1–18, 1952.

Koopman, R. J. W.

1. Mapping of electric fields in curvilinear squares: V. 41, p. 233–236, fig. 1–16, 1938.
2. The use of complex numbers in field mapping: V. 42, p. 377–379, fig. 1–9, 1939.

Kordisch, Mary Schroller

See: Harman, Mary T. 17.

Kramer, C. L.

1. Distribution of leaf spot of elm (*Taphrina ulmi*) in Kansas: V. 56, no. 3, p. 310–312, maps 1–2, 1953.
2. Lichens of the University of Kansas Natural History Reservation: V. 58, no. 4, p. 519–524, 1955.
3. (and Wagenknecht, B. L.) The habitat of *Aplectrum hyemale* in Kansas: V. 60, no. 4, p. 376–378, fig. 1, 1957.
4. (and Mix, A. J.) Deep freeze storage of fungus cultures: V. 60, no. 1, p. 58–64, tables 1–4, 1957.
5. Kansas myxomycetes, I: V. 59, no. 1, p. 49–50, 1956.

6. Notes on Kansas fungi, I: V. 59, no. 2, p. 233–235, 1956.
7. Notes on Kansas fungi, II: V. 59, no. 4, p. 483–484, 1956.
8. (and Pady, S. M.; Rogerson, C. T.; and Ouye, L. A.) Kansas aeromycology, II; materials, methods, and general results: V. 62, no. 3, p. 184–199, 1959.
9. (and Pady, S. M.; and Rogerson, C. T.) Kansas aeromycology, III; *Cladosporium*: V. 62, no. 3, p. 200–207, table 1, 1959.
10. (and Pady, S. M.; and Rogerson, C. T.) Kansas aeromycology, IV; *Alternaria*: V. 62, no. 4, p. 252–256, 1959.
11. (and Pady, S. M.; and Rogerson, C. T.) Kansas aeromycology, VIII; *Phycomycetes*: V. 63, no. 1, p. 19–23, table 1, 1960.
12. (and Pady, S. M.) Kansas aeromycology, IX; *Ascomycetes*: V. 63, no. 2, p. 53–60, tables 1–2, 1960.
13. (and Pady, S. M.) Kansas aeromycology, XI; *Fungi imperfecti*: V. 63, no. 4, p. 228–238, 1960.
14. (and Pady, S. M.) Inhibition of growth of fungi on rose Bengal media by light: V. 64, no. 2, p. 110–116, fig. 1, 1961.
15. See: Hansing, E. D. 15.
16. See: Johnston, C. O. 25.
17. See: Pady, S. M. 7.
18. See: Sill, W. H., Jr. 7.

Kramer, Martha M.

1. See: Evers, Helen 1.
2. See: Gallemore, Isabel 1.
3. See: Gillum, Isabel 1.
4. See: Glaser, Adelaide E. 1.
5. See: Kunerth, Bernice L. 4.
6. See: Potter, Myra T. 1.
7. See: Saffry, Olga 1.

Krishnan, V. R.

See: Taft, Robert 24.

Kroeker, E. H.

(and Gaeddert, Emil; and Unruh, Earl) Varietal and seasonal differences in the mineral content of sweet clovers: V. 40, p. 113–116, tables 1–3, 1938.

Krutzsch, Philip H.

See: Jones, J. Knox, Jr.

Kuchler, A. W.

Some considerations concerning the mapping of herbaceous vegetation: V. 57, no. 4, p. 449–452, 1954.

Kundiger, Donald G.

(and Hennes, John H.) A study of synthesis of propionitrile from ethyl bromide: V. 56, no. 1, p. 127–130, table 1, 1953.

Kunerth, Bernice L.

1. Comparison of total nitrogen analysis of urine for one- and four-day periods: V. 36, p. 157–158, 1933.
2. (Framer, M. M.; and Riddell, W. H.) A preliminary study of the vitamin A content of milk and colostrum: V. 38, p. 209–212, fig. 1 unnumbered, 1935.
3. (Leuschen, Sister) New methods of vitamin A determination applied to a sample of commercial butter: V. 39, p. 191–195, tables 1–2, 1937.
4. (and Kramer, M. M.; Dickman, Sister Regina; and Whitnah, C. H.) Biological assay of milk with lacto flavin as a standard for vitamin C: V. 40, p. 297–299, fig. 1, 1938.
5. (and Riddell, W. H.) Milk as a source of riboflavin (vitamin G): V. 41, p. 231, 1938.

Kuntz, James

The influence of separate answer sheets on the reliability and norms of standardized achievement tests: V. 41, p. 259–261, tables 1–3, 1938.

Lacey, Marvin L.

The effect of climate and different grazing and dusting intensities upon the yield of the short-grass prairies in western Kansas: V. 45, p. 111–123, tables 1–5, fig. 1–10, 1942.

Lahr, E. L.

Pineal implants in rats: V. 35, p. 103, 1932.

Landes, Kenneth K.

1. Unusual surface features of Kansas: V. 34, p. 40, 1931.
2. An unusual type of sink in Mitchell County, Kansas: V. 35, p. 210, 1932.
3. Kansas mineral industries during the depression: V. 38, p. 199–200, fig. 1, 1935.

Landrum, R. D.

The manufacture of enameled ware: V. 22, p. 76–80, 1909.

Lane, H. H.

1. A survey of the fossil vertebrates of Kansas: V. 47, no. 2, p. 129–176, plate 1, fig. 1–5; plate 2; plate 3, fig. 1–3; plate 4; plate 5, fig. 1–2; plate 6; plate 7; fig. A–B, 1944.
2. New Mid-Pennsylvanian reptiles from Kansas: V. 47, no. 3, p. 381–390, fig. 1–3, 1945.
3. A survey of the fossil vertebrates of Kansas: V. 48, no. 3, p. 286–315, fig. 1–7, 1945.
4. A survey of the fossil vertebrates of Kansas, Part III, the reptiles: V. 49, no. 3, p. 289–332, fig. 1–7, 1946.
5. A survey of the fossil vertebrates of Kansas, Part IV, birds: V. 49, no. 4, p. 390–400, 1 unnumbered figure, 1947.
6. Survey of the fossil vertebrates of Kansas, Part V, Mammalia: V. 50, no. 2, p. 130–163, fig. 1–5, 1947.
7. Survey of the fossil vertebrates of Kansas, Part V, the mammals: V. 50, no. 3, p. 273–314, fig. 1–9, 1947.
8. Survey of the fossil vertebrates of Kansas, Part V, Mammalia: V. 51, no. 1, p. 29–76, fig. 1–15, 1948.

Lange, Kenneth I.

The jaguar in Arizona: V. 63, no. 2, p. 96–101, 1960.

Langworthy, A. E.

The Atchison diamond-drill prospect hole: V. 17, p. 45–51, fig. 1–5, unnumbered, 1901.

Lanning, F. C.

1. The effectiveness of silicones as water repellents when applied to various types of limestone: V. 57, no. 3, p. 374–385, 1954.
2. Further studies of the effectiveness of sodium methyl siliconate as a water repellent when applied to limestone: V. 58, no. 1, p. 115–120, 1955.
3. (and Barham, N. H.) Pyrolysis of cornstarch in various solvents: V. 58, no. 1, p. 125–129, tables 1–6, 1955.
4. The effectiveness of silicones as water repellents when applied to various types of brick: V. 58, no. 4, p. 439–445, fig. 1–15, 1955.
5. The effectiveness of silicone of type R Si Y_3 as a water repellent on limestone: V. 58, no. 3, p. 545, fig. 1–6, 1955.
6. The effectiveness of silicones as water repellents when applied to sandstone: V. 59, no. 4, p. 427–431, table I, fig. 1–5, 1956.

7. The effectiveness of silicones as water repellents when applied to concrete: V. 61, no. 3, p. 334–344, 1958.
8. The durability and function of silicones on masonry materials: V. 64, no. 1, p. 63–71, fig. 1–14, 1961.
9. See: Mitchell. H. L.

Lantz, D. E.

1. An annotated list of birds found near Manhattan, Kansas: V. 14, p. 115–123, 1896.
2. Notes on *Loxia curvirostra* Strickland Ridge: V. 14, p. 124–125, 1896.
3. Notes on the frosted poor will: V. 15, p. 14, 1898.
4. A bird review of Kansas ornithology: V. 16, p. 224–276, 1899.
5. The Kansas Academy of Science: V. 16, p. 24–33, 1899.
6. A list of birds collected by Col. N. S. Goss in Mexico and Central America: V. 16, p. 218–224, 1899.
7. A list of birds seen in Dickinson County, Kansas, from August, 1898 to August, 1900: V. 17, p. 116–121, 1901.
8. Statistics about Kansas birds: V. 18, p. 151–153, 1903.
9. A list of Kansas mammals: V. 19, p. 171–178, plate 21, 1905.
10. Notes on collecting Cicindelidae: V. 19, p. 252–260, 1905.
11. Additions and corrections to list of Kansas mammals: V. 20, p. 214–217, 1907.
12. Notes on the Kansas bird list: V. 20, p. 211–213, 1907.
13. Notes on Kansas mammals: V. 22, p. 336–337, 1909.
14. Notes on Kansas mammals: V. 28, p. 241–242, 1918.

Larmour, R. K.

The effect of environment on wheat quality: V. 42, p. 81–89, table 1, 1939.

Larson, Iva

See: Sabrosky, C. W.

Larson, Sara

Soybeans in midwestern farming: V. 53, no. 1, p. 28–43, fig. 1–3, table 1, 1950.

Latimer, Homer B.

1. (and Brown, Jerry W.) An unusual course of cervical nerve fibers to the infrahyoid muscles: V. 55, no. 3, p. 297–299, 1952.
2. The weights of the parts of the brain in several species of animals: V. 59, no. 4, p. 432–441, fig. 1, tables 1–3, 1956.
3. See: Orr, Tom G., Jr. 1.
4. See: Stoland, O. O. 1.

Latshaw, W. L.

See: Sewall, M. C. 1.

Laude, Hilmer H.

1. The fruitful plains: V. 61, no. 1, p. 14–31, fig. 1–7, 1958.
2. See: Evans, W. F.

Laufe, Leonard E.

See: Smith, H. M. 9.

Lawson, P. E.

1. A list of the Cicadellidae of Kansas: V. 30, p. 331–336, 1922.
2. A list of the grasses of Douglas County: V. 30, p. 336–339, 1922.

Learned, Geo. R.

(and Metcalf, Theodore G.) A study of the hemagglutinative behavior of the lipid antigens of *Corynebacterium deptheriae*: V. 55, no. 4, p. 431–438, chart 1, tables 1–3, 1952.

LeConte, Jon. L.

(and Horn, Geo. H.) Descriptions of new species of North American Coleoptera: V. 7, p. 71–74, 1881.

Lee, Floyd M.

See: Brennan, L. A. 1.

Leeper, Robert

The relation between gestalt psychology and the behavioristic psychology of learning: V. 34, p. 268–273, 1931.

Lefebvre, C. L.

1. (and Johnston, C. O.) Kansas mycological notes, 1934: V. 38, p. 101–104, 1935.
2. (and Johnston, C. O.) Kansas mycological notes, 1935: V. 39, p. 95–101, 1937.
3. See: Johnston, C. O. 3.

Legler, John M.

1. A social relation between snapping and painted turtles: V. 59, no. 4, p. 461–462, 1956.
2. Distributional records of amphibians and reptiles in Kansas: V. 63, no. 1, p. 40–43, 1960.

Lehmann, Glenn A.

See: Dains, F. B. 5.

Leisman, Gilbert A.

A new species of *Cardiocarpus* in Kansas coal balls: V. 64, no. 2, p. 117–122, fig. 1–3, 1961.

Leist, Claude

1. See: Burner, Charles C. 1.
2. See: Maupin, James K. 1.

Lenahan, Thomas

See: Schoewe, W. H. 8.

Lentz, Carl F.

See: Schrenk, W. G. 1.

Leonard, Alice A.

1. See: Leonard, A. B. 2.
2. The Mollusca of Meade and Clark counties, Kansas: V. 46, p. 226–240, plate I, fig. 1–21; plate II, fig. 22–23; fig. 1–2, 1943.

Leonard, A. B.

1. Notes on larvae of *Cuterebra* sp. (Diptera: Oestridae) infecting the Oklahoma cottontail rabbit: V. 36, p. 270–274, 1933.
2. (and Leonard, Alice A.) The cellular proliferation associated with cysticercus infestations in the cottontail rabbit: V. 43, p. 429–432, fig. 1–4, 1940.
3. (and Beahm, Edgar H.) Studies on the distribution of trichinealla larvae in the albino rat: V. 44, p. 429–433, table 1, fig. 1–4, 1941.
4. (and Ponder, Luke H.) Crustacea in eastern Kansas: V. 52, no. 2, p. 168–204, plates I–V, fig. 1–38, 1949.
5. Freedom for whom?: V. 55, no. 3, p. 247–252, 1952.
6. See: Franzen, Dorothea S. 1.
7. See: Frye, John C. 7.

Leonard, Guy William, Jr.

See: Swim, Leroy E. 1.

Leone, Charles A.

1. Genetics—Lysenko versus Mendel: V. 55, no. 4, p. 369–380, 1952.
2. Effects of X-irradiation on chickens as revealed by serological analysis I. Whole plasma comparisons: V. 60, no. 3, p. 301–315, 1957.
3. (and Perry, Kenneth) Paper electrophoretic studies on γ-irradiated lyophilized ovalbumin: V. 63, no. 1, p. 44–52, fig. 1–2, 1960.
4. A turbidimetric analysis of a hemocyanin-antihemocyanin precipitin reaction: V. 63, no. 3, p. 147–155, fig. 1–3, 1960.
5. (and Simon, John F., Jr.) Effects of antisera against rabbit tissual proteins on rabbit electrocardiograms and guinea pig anaphylaxis: V. 64, no. 4, p. 321–334, fig. 1–5, 1961.
6. (and Redstone, Marion) Some physiochemical and biological properties of pH_5 protein: V. 65, no. 2, p. 138–142, fig. 1, 1962.
7. See: Dolyak, F. 1.
8. See: Martin, E. P. 1.

Lesher, Samuel W.

See: Roofe, Paul G. 2.

Leuschen, Sister Ethelburg

See: Kenerth, B. L. 3.

Lewis, Kenneth

See: Fletcher, Worth A. 1.

Liao, Y. S.

1. (and Bushnell, L. D.; and Eisenstark, A.) A simplified technique for virus inoculation in chick embryos: V. 56, no. 1, p. 74–77, fig. 1–2, 1953.
2. (and Bushnell, L. D.; and Gainey, P. L.) Concerning the structure of the Newcastle disease virus: V. 56, no. 3, p. 227–233, tables 1–4, 1953.

Lichlyter, Dean E.

(Greenhut, Ann; and Croley, Hugh T.) Psychological problems of mental difficiency: V. 57, no. 4, p. 495–500, 1954.

Lichtenstein, Ivan

(and Reynolds, Charles A.) Spectrophotometric determination of keytones by borohydride reduction: V. 64, no. 4, p. 315–320, 1961.

Liese, Dale H.

1. See: Taft, Robert 48.
2. See: Taft, Robert 50.
3. See: Taft, Robert 52.

Lighton, W. R.

Notes on circulation of sap: V. 11, p. 18–19, 1889.

Linder, Allan D.

Behavior and hybridization of two species of *Etheostoma* (Percidae): V. 61, no. 2, p. 195–212, plates 1–2, 1958.

Linnell, Lyle D.

Soil-vegetation relationships on a chalk-flat range site in Gove County, Kansas: V. 64, no. 4, p. 293–303, fig. 1–2, 1961.

Lippert, Robert D.

(and Hopkins, Harold H.) Study of viable seeds in various habitats in mixed prairie: V. 53, no. 3, p. 355–364, fig. 1, tables 1–3, 1950.

Lippert, Verne

Radioactive properties of the subterranean waters of Ellis County, Kansas: V. 40, p. 309–312, 1938.

Lockhart, C. H.

See: Herrick, E. H. 3.

Lockart, Charles H.

See: Herrick, E. H. 11.

Loehwing, W. F.

Recent advances in the plant sciences: V. 48, no. 2, p. 119–133, fig. 1–4, 1945.

Loewen, S. L.

1. A new cestode from a bat: V. 37, p. 257–262, fig. 1–3, plate VII, 1934.
2. Taste differences in a family: V. 39, p. 165–167, 1937.
3. (and Jones, J. Russell) An anomalous lamb: V. 40, p. 377–383, plate 1, fig. A–B; plate 2, fig. A–H, 1938.
4. A new host record for the cestode *Bothridium pithonis* de Blainville, 1828: V. 48, no. 1, p. 107–108, 1945.

Lokke, Donald H.

1. Meteorological education in Kansas: V. 60, no. 1, p. 1–4, 1957.
2. (and Kidman, Roy L.) Bibliography of Kansas meteorology: severe local storms: V. 64, no. 1, p. 42–48, 1961.
3. Clouds and climate of Kansas: V. 64, no. 3, p. 233–236, fig. 1, 1961.

Long, Charles A.

1. (and Hays, Horrace A.) Some effects of colchicine on transverse fission in the planarian, *Dugesia dorotocephala*: V. 62, no. 4, p. 257–261, 1959.
2. (and Wiley, Martin L.) Contents of pellets of the short-eared owl, *Asio flammeus*, in a prairie habitat in Missouri: V. 64, no. 2, p. 153–154, 1961.

Long, John H.

A new method of determining the wind's velocity: V. 6, p. 87–89, 1878.

Long, Sam

See: Bogart, Ralph I.

Long, Walter S.

1. The adulteration of jams and jellies: V. 28, p. 168–172, 1918.
2. The composition of commercial fruit extracts: V. 28, p. 157–161, tables 1–3, 1918.
3. A method for the determination of starch: V. 28, p. 172–174, 1918.
4. The relation between the quantities for tin and hydrogen in "Springers": V. 28, p. 162–168, 1918.
5. On the preparation of chemically stable and bacteriologically hypochlorite solutions: V. 34, p. 164–165, tables 1–3, 1931.
6. On the constitution of certain di-substituted thiazolidones: V. 36, p. 119–124, 1933.
7. A checklist of Kansas birds: V. 43, p. 433–456, 1940.

Loomis, Richard B.

1. See: Jones, J. Knox, Jr. 1.
2. See: Jones, J. Knox, Jr. 2.

Louloudes, S. J.

See: Kaplanis, John N.

Lovewell, J. T.

1. On sound transmission by electricity: V. 6, p. 25–29, 1878.
2. Kansas weather service: V. 7, p. 83–85, 1881.
3. Gold in Kansas: V. 18, p. 134–137, fig. unnumbered, plate 1 unnumbered, 1903.

4. Gold in Kansas shales: V. 18, p. 129–133, 1903.
5. Minutes, Thirty-eighth Annual meeting, Kansas Academy of Science, Dec. 1–2, 1905: V. 20, part 1, p. 13–18, 1905.
6. Secretary's Report, 1905: V. 20, p. 10–12, 1905.
7. The genesis of gold in mineral veins and placers: V. 20, p. 205–207, 1906.
8. The Foucault experiment: V. 20, p. 230–233, 1906.
9. The spectrum and spectrum scales: V. 20, p. 63–66, fig. 1, unnumbered, 1907.
10. Fireless cooking: V. 21, p. 60–63, 1908.
11. The economy of heat in cooking: V. 22, p. 81–83, 1909.
12. Necrology: James Richard Mead: V. 24, p. 330–331, 1910.
13. Future of the Kansas Academy Library and book collections in the State House: V. 24, p. 321–324, 1910.
14. The longevity of Yale graduates: V. 25, p. 164–166, 1913.
15. Necrology: James C. Cooper: V. 25, p. 179–181, 1913.
16. Witching for water and other things: V. 26, p. 101–103, 1914.

Lowe, Charles H., Jr.

The salamanders of Arizona: V. 58, no. 2, p. 237–251, fig. 1–3, tables 1–2, 1955.

Luft-Zurakowski, Ludwig

An apparatus for the experimental exploration of the high temperature–high pressure region: V. 56, no. 3, p. 382–386, fig. 1, 1953.

Lungstrom, Leon G.

1. Biological studies on *Culex tarsalis* (Diptera Culicidae) in Kansas: V. 57, no. 1, p. 86–96, tables 1–4, fig. 1–3, 1954.
2. Additional observations on the recognition features of the *Culex tarsalis* larva and pupa (*Culicidae*: Diptera): V. 58, no. 1, p. 68–74, tables 1–4, plate 1, fig. 1–8; plate 2, fig. 1–3, 1955.
3. (and Sooter, Clarence A.) Mosquito light-trap collections made in conjunction with the encephalitis investigation in southeastern Kansas in 1949 and 1950: V. 64, no. 2, p. 133–143, fig. 1–5, 1961.

Lunsford, William Alan

The relation of depth of planting to the morphology of the wheat seedling: V. 45, p. 124–128, fig. 1–2, 1942.

Lyon, Eric R.

1. Electrostatic inductor alternator: V. 34, p. 244–247, 1931.
2. Electrons moved by interference between their waves: V. 39, p. 197, 1937.
3. Simple wave equation showing barrier: V. 39, p. 199, 1937.

Lyons, E. T.

(and Hansen, M. F.; and Tiemeier, O. W.) Helminth parasites of black-tailed jack rabbit in southwestern Kansas: V. 63, no. 3, p. 135–140, fig. 1–3, 1960.

Lyons, Thomas D.

(and Andrews, A. C.) A spectrophotemetric method for the quantitative determination of histamine: V. 58, no. 3, p. 435–438, fig. 1–2, table 1, 1955.

MacDougal, D. T.

Darwinism and experimentation in botany: V. 22, p. 389–392, 1909.

MacElwane, James B.

The structure of the interior of the earth: V. 51, no. 2, p. 143–161, 19 figures, 1 unnumbered fig., 1948.

MacFarquhar, Wm. K.

The chert gravels of the Kansas River Valley between Lawrence and Kansas City: V. 41, p. 211, 1938.

MacKintosh, D. L.

1. (and Hall, J. L.) Fat as a factor in palatability of beef: V. 39, p. 53–58, fig. 1–4, table 1, 1937.
2. See: Bray, Robert W. 1.
3. See: Watt, Desmond B.
4. See: Wellington, G. H. 1.

MacKintosh, Irene

1. Acquisition latencies for responses acquired under conditions of total and partial reinforcement: V. 58, no. 4, p. 557–560, fig. 1, 1955.
2. The relationship between hypnotizability and two tests of suggestibility: V. 58, no. 4, p. 549–556, tables 1–3, fig. 1, 1955.
3. A theoretical examination of an experiment on differential resistance to extinction: V. 58, no. 3, p. 414–418, 1955.

Malin, James C.

1. Professor W. Foster, an identification: V. 58, no. 1, p. 22–23, 1955.
2. Wheat, geology, and "Professor" W. Foster: V. 59, no. 2, p. 240–248, 1956.

Mallory, B. F.

(and Crown, G.) Shell repair in the gastropod *Marisa rotula*: V. 63, no. 4, p. 258–261, 1960.

Malm, Lloyd E.

1. See: Taft, Robert 3.
2. See: Taft, Robert 5.
3. See: Taft, Robert 6.

Mann, A. H.

See: Hoad, W. C. 2.

Mann, Robert J.

See: Miller, Halsey W. 5.

Mannoni, Socrates A.

A survey of the green algae of Crawford County: V. 35, p. 179–189, plates 1–2, table 1, map 1, 1932.

Marlatt, C. L.

1. Notes on the oviposition of the buffalo tree-hopper: V. 10, p. 84–85, fig. 4–5, 1887.
2. Notes on a red cedar saw-fly: V. 10, p. 80–83, fig. 1–3, 1887.
3. Notes on the early stages of three moths: V. 11, p. 110–114, fig. 1–3, unnumbered, 1889.

Marlatt, F. A.

Preliminary studies on the moon: V. 21, p. 259–262, fig. 1 unnumbered, 1908.

Marsh, D. L.

Relationship of phlox *Oklahomensis* to phlox *Bifida* complex: including a new subspecies of phlox *Bifida*: V. 63, no. 1, p. 12–18, fig. 1–2, 1960.

Marsi, Kenneth L.

1. See: Schmidt, Gene W.
2. See: Horning, Edward J.

Martin, Elmore L.

(and Fletcher, Worth A.) Nitro compounds as oxidizing agents II: V. 37, p. 135–138, table 1, 1934.

Martin, Edwin P.

1. (and Leone, Charles A.) Serological relationships among domestic fowl as shown by comparisons of protein preparations from corresponding organ systems: V. 55, no. 4, p. 439–444, tables 1–2, fig. 1, 1952.
2. (and Sternberg, George F.) A swift fox, *Vulpes velox velox* (Say), from western Kansas: V. 58, no. 3, p. 345–346, fig. 1, 1955.
3. (and Tomanek, Gerald W.; and Albertson, F. W.) Use of regression line to estimate basal cover of sod-forming grasses: V. 58, no. 4, p. 526–527, fig. 1, 1955.
4. See: Herrick, E. H. 11.

Martin, H. T.

1. A collecting trip to Patagonia, South America: V. 19, p. 101–104, plates 8–9, 1905.
2. Notice of some new elements in *Uintacrinus*: V. 20, p. 202, 1907.

Martin, James B.

(and Davidson, Arthur W.) Factors determining the structure of the alkali polysulfides: V. 43, p. 227–234, tables 1–3, fig. 1–2, 1950.

Marvin, F. O.

1. Notes on magnetic declination in Kansas: V. 12, p. 8–10, 1890.
2. Note on the precision of the solar attachment to the engineer's transit: V. 12, p. 164, 1890.
3. Water supply from a sanitary standpoint: V. 17, p. 54–66, 1901.
4. Notes on some Kansas paving brick: V. 19, p. 90–98, fig. 5–8, tables 1–4, 1905.
5. Notes on Kansas road metal: V. 20, p. 70–73, 1907.
6. Recent growth of engineering colleges: V. 20, p. 23–32, fig. 1–3, unnumbered, 1907.
7. Memorial, Scientific papers of Dr. Snow: V. 22, p. 28–34, 1909.
8. See: Dalton, B. J.

Marx, Hymen

See: Reed, C. A.

Mason, Harry

A concept of gradient of personality integration as a substitute for Freudian concepts in problems of mental hygiene: V. 40, p. 319–322, 1938.

Mason, S. C.

Preliminary list of fossils found in Riley County: V. 8, p. 12–13, 1883.

Matheny, William Guy

1. The effectiveness of aptitude testing in the Civilian Pilot Training Program: V. 44, p. 363–365, 1941.
2. Further studies of learning aptitude in pilots, a prediction of flying aptitude: V. 45, p. 285–286, 1942.

Matthews, L.

The Simson Line and its relation to the Nine Point Circle: V. 62, no. 1, p. 9–12, 1959.

Matthews, R.

1. *Antrostomus carolinensis*: V. 16, p. 277, 1899.
2. The black duck in Kansas: V. 17, p. 114, 1901.

Matthews, W. H.

1. The optical properties of Joplin calcite: V. 35, p. 118–119, 1932.
2. Some uses of storage battery compound in the physics laboratory: V. 36, p. 162–163, 1933.
3. Scientific development and investigation in southeast Kansas: V. 38, p. 37–42, 1935.

Matthewson, W. E.

1. Properties and composition of some typical flours: V. 19, p. 78–80, plate 6, 1905.
2. Reagents for the detection and estimation of aliphatic amines and nitroparaffins: V. 58, no. 2, p. 282–287, tables 1–3, 1955.

Maupin, James K.

(and Wells, James R., Jr.; and Leist, Claude) A preliminary survey of food habits of the fish and physico-chemical conditions of the water of three strip mine lakes: V. 57, no. 2, p. 164–171, tables 1–3, 1934.

Maus, Pearl M.

Flora of Wabaunsee County, Kansas: V. 32, p. 88–104, 1929.

Mayberry, M. W.

1. Origin and development of the crop in the chick: V. 38, p. 325–335, fig. 1–20, plates 1–4, 1935.
2. An anatomical study of *Asclepias pumila, A. incarnata* and *A. quadrifolia*: V. 41, p. 127–137, fig. 1–19, 1938.
3. Some anatomical features of *Amsonia tabernaemontana*: V. 40, p. 75–82, fig. 1–11, plates 1–2, 1938.
4. Some examples of proterogyny and proterandry of our native flora: V. 43, p. 133–141, plates 1–3, fig. 1–7, 1940.
5. *Martynia louisiana* Mill, an anatomical study: V. 50, no. 2, p. 164–171, plate I, fig. 1–4; plate II, fig. 1–9; plate III, fig. 1–8, 1947.

Mayer, Alfred Goldsborough

1. Radiation of heat from foliage: V. 12, p. 61–62, 1890.
2. Selective absorption of heat by leaves: V. 13, p. 48–49, 1893.

Mayman, Martin

An analysis of scatter in intelligence test results; a review of the literature: V. 48, no. 4, p. 429–444, 1947.

McCain, James A.

Keynote address of the Conference on Science and Industry: V. 65, no. 1, p. 5–9, 1962.

McCalla, T. M.

1. (and Foltz, V. D.) The uptake of ions by bacteria: V. 44, p. 46–47, 1941.
2. Microbiological studies of the effect of straw used as mulch: V. 46, p. 52–56, tables 1–3, fig. 1–2, 1943.
3. The stability of soil structure against falling water drops containing different dissolved materials: V. 50, no. 3, p. 349–355, tables 1–6, 1947.
4. Micro-organisms and soil structure: V. 53, no. 1, p. 91–100, tables 1–7, 1950.
5. Influence of soil conditioner (HPAN) on nitrification: V. 62, no. 1, p. 53–57, tables 1–3, 1954.

McCammon, Ruth

1. (and Holman, Myrna) Effect of human diets upon development of phosphorus content of albino rats: V. 35, p. 107–109, 1932.
2. (and Caulfield, W. J.) Relative economy of various types of cheese as determined by analysis: V. 36, p. 159–161, fig. 1, 1933.

McCartney, W. P.

History of catalysis and its utility in systemicphthisis: V. 24, p. 299–316, table 1, 1910.

McCaskill, G. A.

See: Harris, J. O. 7.

McClung, G. E.

1. The fossil bison of Kansas: V. 19, p. 156–159, fig. 10, 1905.
2. The U. of K. expedition in the John Day region of Oregon: V. 20, p. 67–70, 1906.

McClung, Norvel M.

1. Actinomycetes in local soils: V. 54, no. 2, p. 218–220, tables 1–2, 1951.
2. Morphological studies in the genus *Nocardia IV*, bright phase contrast observations of living cells: V. 58, no. 1, p. 50–57, fig. 1–64, 1955.

McCluskey, Michael

The effects of Hypexia on the embryos of pregnant mice: V. 61, no. 3, p. 254–258, 1958.

McColloch, J. W.

1. (and Hayes, Wm. P.) An annotated list of some Kansas *Pleurosticti* (Scarabaeidae): V. 30, p. 345–351, 1922.
2. The eleodes of Riley County, Kansas: V. 30, p. 182–183, 1922.
3. (and Hayes, W. P.) Lachnosterna in the vicinity of Manhattan, Kansas: V. 30, p. 184–195, 1922.

McCollum, E. V.

1. See: Bartow, Edward 3.
2. See: Bartow, Edward 5.

McCormack, Shirley D.

See: Herrick, E. H. 10.

McCormick, C. T.

See: Shults, M. G. 1.

McCullough, A. W.

1. Notes of the behavior of small amoeba of the genus *Naegleria*: V. 38, p. 337–340, fig. 1–5 unnumbered, 1935.
2. Some reactions of *Naegleria bistodialis* to light intensity patterns: V. 40, p. 385–388, 1938.

McDonald, Clinton C.

A yeast like organism isolated from the human scalp: V. 41, p. 125, 1938.

McEwen, W. E.

See: Popp, F. D.

McFarland, Alie K.

See: Woods, H. I. 2.

McFarland, D. F.

1. Composition of gas from a well at Dexter, Kansas: V. 19, p. 60–62, 1905.
2. See: Cady, H. P. 3.
3. See: Cady, H. P. 4.

McFarland, R. H.

See: Harris, John O. 4.

McGregor, R. L.

1. First year invasion of plants on an exposed lake bed: V. 51, no. 3, p. 324–327, 1948.
2. The flora of Douglas County, Kansas: V. 51, no. 1, p. 77–106, 1 fig., 1948.
3. (and Volle, L. D.) First year invasion of plants on the exposed bed of Lake Fegan, Woodson County, Kansas: V. 53, no. 3, p. 372–377, 1950.
4. (and Horr, W. H.) Kansas plants new to Kansas herbaria V: V. 53, no. 3, p. 365–369, 1950.
5. (and Sperry, K. L.) Variation of *Ceratophyllum demersum* in eastern Kansas: V. 54, no. 4, p. 536–539, tables 1–2, 1951.
6. *Riccia frostii* after the Kansas floods of 1951: V. 55, no. 2, p. 176–177, 1952.
7. (and Horr, W. H.) Kansas plants new to Kansas herbaria VIII: V. 56, no. 2, p. 200–202, 1953.
8. (and Horr, W. H.) Kansas plants new to Kansas herbaria IX: V. 58, no. 2, p. 169–170, 1955.
9. Additions to the Kansas flora: V. 59, no. 3, p. 327–332, 1956.
10. (and Lathrop, Earl W.) Additions to the Kansas flora for 1956: V. 60, no. 1, p. 65–70, 1957.
11. New forms and nomenclatorial combinations in the Kansas flora: V. 60, no. 2, p. 161–162, 1957.
12. Variation in *Sisyrinchium campestre*, Bickn.: V. 63, no. 3, p. 121–124, 1960.
13. See: Gates, Frank C. 36.
14. See: Hetzer, W. A. 3.
15. See: Horr, W. H. 3.
16. See: Horr, W. H. 4.
17. See: Horr, W. H. 5.
18. See: Horr, W. H. 7.
19. See: Horr, W. H. 8.
20. See: Mix, A. J. 3.
21. See: Mix, A. J. 4.
22. See: Yokoyama, K. 1.

McKinley, Lloyd

See: Nibarger, Agnes 1.

McKinney, H. H.

See: Melchers, L. E. 9.

McMahon, K. J.

1. (and Harris, John O.) A study of the effect of surface-active agents on the agglutination reaction: V. 60, no. 1, p. 43–49, tables 1–3, 1957.
2. See: Bowen, Richard E.

McMillen, J. Howard

Relation of physics to the war effort: V. 46, p. 272–275, 1943.

McNaught, James B.

1. The algae of Kansas reservoirs: V. 28, p. 121–128, 1918.
2. Algae of Kansas reservoirs: V. 29, p. 142–177, fig. 1–38, 1920.

McReynolds, S. A.

See: Curtis, R. W. 1.

McWarf, J. M.

1. Physical development and school life: V. 19, p. 353–359, 1905.
2. Sanitary science: V. 19, p. 345–350, 1905.
3. Noise—its relation to health, disease, and longevity: V. 20, p. 237–240, 1907.
4. Man abnormal: V. 21, p. 191–198, 1908.
5. Cancer—thoughts on: V. 22, p. 376–383, 1909.

6. Thoughts on tuberculosis: V. 24, p. 317–320, 1910.
7. Worth and dignity of the teacher's vocation: V. 25, p. 6–15, 1913.
8. Malignant tumors—cancer: V. 27, p. 123–128, 1915.
9. Echinacea—its combination and use: V. 28, p. 179–180, 1918.
10. The early history of medicine: V. 29, p. 46–48, 1920.
11. The banana as a food product: V. 30, p. 124–125, 1922.
12. Education—physical and mental: V. 30, p. 341–343, 1922.
13. Public baths and their hygienic or sanitary value: V. 30, p. 369–370, 1922.

Mead, J. R.

1. Results of some explorations among the Pueblo ruins in New Mexico: V. 10, p. 73–77, 1887.
2. Camps of prehistoric people in Sedgwick County, Kansas: V. 12, p. 64–65, 1890.
3. Notes on the occurrence of gold in Montana: V. 12, p. 5–6, 1890.
4. A dying river: V. 14, p. 111–112, 1896.
5. How the pheasant "drums": V. 14, p. 113–114, 1896.
6. The drill hole at Wichita: V. 14, p. 20–22, 1898.
7. *Felis concolor*: V. 16, p. 278–279, 1899.
8. Some natural history notes of 1859: V. 16, p. 280–281, 1899.
9. Some notes on the birds of southern Kansas: V. 16, p. 216–217, 1899.
10. Were quails native to Kansas?: V. 16, p. 277–278, 1899.
11. Archeology of Catalina Island: V. 17, p. 215–216, 1901.
12. The Flint Hills of Kansas: V. 17, p. 207–208, 1901.
13. Origin of names of Kansas streams: V. 18, p. 215–216, plate 1 unnumbered, 1903.
14. Notes on the archaeology of Butler County, Kansas: V. 19, p. 328–330, plate 29, fig. 1–7, 1905.

Mead, S. G.

The drying-up of pools and streams in central Kansas: V. 18, p. 213–214, 1903.

Meeker, Grace R.

1. Native plants of Kansas adapted to cultivation: V. 17, p. 105–109, 1901.
2. A little experiment in flower making: V. 20, p. 188–189, 1906.
3. Nature photography in Kansas—the work of Mr. and Miss McColm: V. 20, Part II, p. 277–280, photographs 1–3, unnumbered, 1907.

Megee, Mary C.

A briefly annotated bibliography of the Polar regions: V. 58, no. 1, p. 87–110, 1955.

Melcher, Newell C.

See: Cornelius, D. R. 1.

Melchers, L. E.

1. Physoderma (zeae-maydis) in Kansas: V. 29, p. 131, 1920.
2. Plant disease report for Kansas, 1917: V. 29, p. 132–138, 1920.
3. Plant disease heretofore unreported in Kansas—reported in 1914, 1915, 1916, 1917: V. 30, p. 196–197, 1922.
4. Plant disease survey report for Kansas, 1918: V. 30, p. 197–201, 1922.
5. The wheat foot-rot disease in Kansas: V. 32, p. 138–140, 1929.
6. A check list of plant diseases and fungi occurring in Egypt: V. 34, p. 41–106, 1931.
7. Plant disease problems in Egypt: V. 35, p. 38–61, tables 1–2, 1932.
8. Climate in relation to plant diseases: V. 44, p. 172–183, table 1, fig. 1, 1941.
9. (and McKinney, H. H.) Studies of foot-rot of wheat (Take-All) in Kansas—second report of progress: V. 32, p. 142–143, 1929.
10. Sorghum kernel smut infection in relation to temperature: V. 59, no. 4, p. 485–491, tables 1–2, 1956.

11. Sorghum kernel smut infection in relation to seed germination: V. 59, no. 3, p. 320–326, 1956.
12. Uncommon symptoms of smut infection in sorghum: V. 59, no. 2, p. 223–227, 1956.
13. See: Hansing, E. D. 1.
14. See: Hansing, E. D. 3.
15. See: Hansing, E. D. 4.
16. See: Johnston, C. O. 7.
17. See: Stiles, Elsa Horn 1.
18. See: White, R. P. 1.

Menges, Robert W.

(and Habermann, Robert T.; and Stains, H. J.) A distemper-like disease in raccoons and isolation of *Histoplasma capsulatum* and *Haplosporagium parvum*: V. 58, no. 1, p. 58–67, table 1, plate 1, fig. 1–4, 1955.

Mennemeyer, Paul

Design of a three-stage mouse-carrying rocket: V. 63, no. 4, p. 299–304, 1960.

Menninger, C. F.

Gastric ferments: V. 21, p. 49–52, 1908.

Mentzer, Loren

Preliminary study of freshwater algae of Lyon County, Kansas: V. 43, p. 143–145, 1940.

Merkel, Daniel L.

(and Hopkins, Harold H.) Life history of salt cedar (*Tarmarix gallica* L.): V. 60, no. 4, p. 360–369, fig. 1–7, 1957.

Merriam, Daniel F.

1. (and Mann, John C.) Sinkholes and related geologic features in Kansas: V. 60, no. 3, p. 207–243, fig. 1–9, 1957.
2. History of Precambrian studies in Kansas: V. 65, no. 4, p. 433–447, fig. 1–8, 1962.

Merrill, C. D.

Notes on Giant's Causeway and Fingal's Cave: V. 6, p. 6–10, 1878.

Merrill, J. R.

See: Perkins, A. T. 5.

Messmore, Harold E.

See: Taft, Robert 2.

Metcalf, Artie L.

1. (and Distler, Donald A.) New distributional records for two species of crayfish: V. 64, no. 4, p. 353–356, 1961.
2. Gastropods of Couley County, Kansas: V. 65, no. 3, p. 275–289, 1962.

Metcalf, Theodore G.

See: Learned, George R. 1.

Metzger, W. H.

1. (and Anderson, Kling L.) Plant succession on land in continuous alfalfa culture as influenced by fertilizer treatments: V. 44, p. 184–189, 1941.
2. See: Perkins, A. T. 7.

Metzler, Dwight F.

1. (and Stoltenberg, Howard A.) The public health significance of high nitrate waters as a cause of infant cyanosis and methods of control: V. 53, no. 2, p. 194–211, fig. 1–4, tables 1–6, 1950.
2. Use, misuse, and future use of water in Kansas: V. 59, no. 1, p. 111–117, 1956.

Michaelson, Louis

Terrace sands of eastern Sedgwick County, Kansas: V. 41, p. 213–217, fig. 1, 1938.

Michener, Charles D.

Problems in the development of social behavior and communication between insects: V. 56, no. 1, p. 1–15, tables 1–2, 1953.

Mikesell, W. H.

The effect of configuration upon contrast: V. 40, p. 323–325, 1938.

Miller, Abbie

See: Harmon, Mary T. 14.

Miller, E.

1. Differentials of the second and higher orders: V. 12, p. 65–67, 1890.
2. The periods of rotation of Mercury and Venus and the satellites of the solar system: V. 14, p. 94–97, 1896.
3. A new theory of the surface markings of the moon: V. 15, p. 10–13, 1898.
4. Where did Mars get its moons?: V. 15, p. 46–50, 1898.
5. The corona of the Sun: V. 17, p. 210–214, plate 1 unnumbered, 1901.
6. Science and the nineteenth century: V. 18, p. 27–35, 1903.
7. The non-Euclidean geometry: V. 19, p. 374–378, 1905.
8. Variations of latitude: V. 20, p. 199–204, 1906.
9. Memorial Address: Francis Huntington Snow: V. 22, p. 19–28, picture, 1909.

Miller, Edwin C.

Water relations of corn and sorghums: V. 29, p. 138–141, 1920.

Miller, H. D. Oliver

Observations on sod webworms (*Crambus* spp. Lepidoptera) in Kansas: V. 43, p. 267–281, plates 1–2, fig. 1–10, tables 1–2, 1940.

Miller, H. L.

Instinct: V. 19, p. 387–391, 1905.

Miller, Halsey W., Jr.

1. (and Sternberg, G. F.; and Walker, M. V.) *Uintacrinus* localities in the Niobrara formation of Kansas: V. 60, no. 2, p. 163–166, fig. 1–2, 1957.
2. Intestinal casts in *Pachyrhizodus*, an elopid fish, from the Niobrara formation of Kansas: V. 60, no. 4, p. 400–402, fig. 1, plate 1, 1958.
3. *Petalodus jewetti*, a new species of fossil bradyodont fish from Kansas: V. 60, no. 1, p. 82–85, fig. 1–2, table 1, 1957.
4. An elopid fish from the Codell sandstone (Cretaceous) of Kansas and the depositional environment of the sandstone: V. 61, no. 2, p. 213–215, plate 1, 1958.
5. (and Mann, Robert J.) *Petalodus* (bradyodont) from the Permian of Kansas and Oklahoma: V. 61, no. 1, p. 97–103, plates 1–2, 1958.

Miller, R. F.

1. The magnifying power of a telescope for objects at close range: V. 42, p. 381–383, unnumbered tables, 1939.
2. Bird photography with a reflecting telescope: V. 43, p. 325–328, plates 1–2, fig. 1–4, 1940.
3. A combination camera and telescope eyepiece: V. 44, p. 332–336, fig. 1–3, 1941.
4. A sky-projection chart for the astronomy class: V. 46, p. 66–69, table I, fig. 1, 1943.
5. (and Boyd, Ivan L.) Migration records of birds in east-central Kansas: V. 50, no. 1, p. 62–71, 1 unnumbered chart, 1947.

Miller, W. A.

See: Hendrickson, Robert L. 1.

Minckley, W. L.

1. Fish survey of the Pillsbury Crossing Area: V. 59, no. 3, p. 351–357, 1956.
2. (and Deacon, J. E.) New distributional records for three species of Kansas crayfish: V. 62, no. 2, p. 165, 1959.
3. (and Cross, F. B.) Taxonomic status of the shorthead redhorse *Moxostoma aureolum* (LeSueur) from the Kansas River Basin: V. 63, no. 1, p. 35–39, table 1, fig. 1, 1960.
4. See: Cross, F. B. 4.

Minter, Kenneth W.

(and Copeland, B. S.) Oxygen relationships in Lake Wooster, Kansas during wintertime conditions: V. 65, no. 4, p. 452–462, fig. 1–3, 1962.

Minton, Sherman A.

See: Smith, Hobart M. 10.

Mitchell, H. L.

1. (and Lanning, F. C.; and Silker, R. E.) Effect of dehydration and suncuring on the nitrogenous constituents of alfalfa: V. 53, no. 2, p. 190–193, table 1, 1950.
2. (and Silker, R. E.) Loss of carotene in dehydrated alfalfa during storage: V. 55, no. 4, p. 479–483, tables 1–4, 1952.
3. See: Gugliemilli, L. A. 1.
4. See: Wang, I. Cheng
5. (and Pauli, A. W.) A study of cold hardiness of winter barley: V. 64, no. 2, p. 91–95, fig. 1–4, 1961.
6. Some agricultural and industrial dividends of research: V. 65, no. 1, p. 32–33, 1962.

Mitchell, Ralph W.

See: Bowen, Richard E.

Mittleman, M. B.

1. (and Smith, Hobart M.) Remarks on the Mexican subspecies of the coral snake *Micrurus nigrocinctus*: V. 52, no. 1, p. 86–88, table 1, 1949.
2. See: Smith, Hobart M. 8.

Mittra, M. K.

(and Stickler, F. C.) Excess water effects on different crops: V. 64, no. 4, p. 275–286, 1961.

Mix, A. J.

1. Factors affecting the sporulation of *Phyllosticta solitaria* in artificial culture: V. 36, p. 105, 1933.
2. Some new species of *Taphrina*: V. 50, no. 1, p. 77–83, fig. 1 (8 types of fig.), 1947.
3. (and McGregor, R. L.) Species of *Taphrina* in Kansas: V. 52, no. 3, p. 352–354, 1949.
4. (and McGregor, R. L.) Notes on Kansas fungi, 1949: V. 53, no. 3, p. 340–343, fig. 1, 1950.
5. Additions and emendations to a monograph of the genus *Taphrina*: V. 57, no. 1, p. 55–65, fig. 1–2, 1954.
6. Notes on some species of *Taphrina*: V. 59, no. 4, p. 465–482, fig. 1, 1956.

Moggie, Maurice C.

A memory study employing a factorial experimental design and the analysis of variance: V. 46, p. 212–216, tables I–II, 1943.

Mohilner, Patricia

(and Reynolds, Charles A.) The standardization and application of dispersed sodium: V. 63, no. 2, p. 72–76, tables 1–4, 1960.

Mohler, R. E.

1. A new amebelodon for Kansas: V. 41, p. 219–221, fig. 1 unmarked, 1938.
2. (and Schmidt, R. H.) Bird studies: V. 52, no. 4, p. 472–473, 1949.
3. (and Dell, Carl) A study of longevity in McPherson County: V. 52, no. 4, p. 510, 1949.
4. (and Schmidt, R. H.) The whitetailed jackrabbit: V. 52, no. 4, p. 406, 1949.
5. Science for all of life: V. 57, no. 3, p. 255–260, 1954.

Monfort, Mrs. Edith

A layman looks at water: V. 59, no. 1, p. 118–123, 1956.

Montell, R. L.

See: Setzer, Henry W. 1.

Montgomery, Gerald Gene

Some aspects of the sociality of the domestic horse: V. 60, no. 4, p. 419–424, tables 1–3, 1957.

Moodie, Roy L.

1. The Carboniferous quadrupeds—those of Kansas, Ohio, Illinois, and Pennsylvania in their relation to the classification of the so-called Amphibia and Stegocephala: V. 22, p. 239–247, plate 1; plate 2, fig. 1–5; plate 3, 1909.
2. An embryonic plesiosaurian propodial: V. 23, p. 95–101, fig. 1–9, plate 1, 1909.

Moon, Eugene L.

Notes on hawk and owl pellet formation and identification: V. 43, p. 457–466, tables 1–2, 1940.

Moore, Kenneth

1. Scientific attitudes in relation to climatic fluctuations: V. 44, p. 366–368, 1941.
2. The effect of temperature changes upon the behavior of the white rat: V. 46, p. 217–219, 1943.

Moore, Ruth

See: Barton, Arthur W. 3.

Morin, Edmond A.

(and Choguill, Harold S.) Aldehyde derivatives of some metallic sulfamates: V. 53, no. 2, p. 212–216, tables 1–3.

Mosby, Larry D.

(and Lynn, William M.) Water birds resident in Kansas in summer, 1955: V. 59, no. 4, p. 455–458, map 1, 1956.

Moss, W. Glen

See: Branch, Hazel Elizabeth 6.

Mozley, Annie E.

List of Kansas snakes in the museum of the Kansas State University: V. 6, p. 34–35, 1878.

Mudge, B. F.

1. Geology of the Arkansas: V. 1, p. 50–53, 1872.
2. Red sandstone of central Kansas: V. 1, p. 37–39, 1872.
3. Recent discoveries of fossil footprints in Kansas: V. 2, p. 71–74, 1873.
4. Traces of the Mound Builders in Kansas: V. 2, p. 69–71, 1873.
5. A geological survey of Kansas: V. 3, p. 101–102, 1874.
6. Pliocene Tertiary of western Kansas: V. 3, p. 113–117, 1874.
7. Rare forms of fish in Kansas: V. 3, p. 121–122, 1874.
8. Bison *latifrons* in Kansas: V. 5, p. 10, 1877.
9. Cretaceous forests and their migrations: V. 6, p. 46–48, 1878.
10. Internal heat of the earth: V. 6, p. 49–51, 1878.
11. List of minerals found in Kansas: V. 7, p. 27–29, 1881.
12. Metamorphic deposits in Woodson County: V. 7, p. 11–13, 1881.

Mudge, Melville R.

Early Pleistocene geomorphic history of Wabaunsee, southeastern Riley and southern Pottawatomie counties, Kansas: V. 58, no. 2, p. 271–281, fig. 1–2, 1955.

Mueller, W. J.

Group interpretation of test results: V. 49, no. 4, p. 457–460, 1947.

Murphy, E. C.

1. Equation of the mean monthly 21-year temperature curve of Lawrence, Kansas: V. 12, p. 160–162, plate 1 unnumbered, 1890.
2. Some tests of cement manufactured in Kansas: V. 12, p. 12–15, tables 1–5, 1890.
3. Is the rainfall of Kansas increasing?: V. 13, p. 16–19, plates 1–2, unnumbered, tables 1–2, 1893.
4. Maximum bending moments for moving loads in a drawbeam: V. 13, p. 116–120, 1893.
5. Probable temperature of the summer in Lawrence, Kansas: V. 13, p. 58–60, 1893.
6. Seven-year periodicity in rainfall: V. 13, p. 60–62, tables 1–2, 1893.
7. The new water supply of the University of Kansas: V. 14, p. 98–99, 1896.

Murphy, Paul G.

The psychology of the individual: V. 53, no. 2, p. 103–118, 1950.

Murray, Agnes Anderson

Some experiments with the Mason fruit jar: V. 27, p. 131–132, 1915.

Murray, Harold D.

Unionid population of a one and one-half acre pond: V. 63, no. 4, p. 262–263, 1960.

Murrill, Rupert Ivan

1. On the use of IBM cards for large samples in human biology: V. 60, no. 1, p. 92–98, fig. 1–4, 1957.
2. Some aspects of human racial adaptation: V. 63, no. 3, p. 194–214, 1960.

Meyers, Charles W.

1. Amphibians and reptiles of Washington State Park, Washington County, Missouri: V. 60, no. 3, p. 288–294, 1957.
2. Amphibians and reptiles of Montauk State Park and vicinity, Dent County, Missouri: V. 62, no. 1, p. 88–90, 1959.

Meyers, H. E.

1. (and Johnson, E. W.) The cause and control of chlorosis in western Kansas: V. 36, p. 106–110, fig. 1–4, plates 1–2, 1933.
2. Soil moisture and winter wheat in Kansas: V. 43, p. 69–73, fig. 1–2, table 1, 1940.

Nabours, Robert K.

1. (and Stebbins, Florence M.) More or less potency of genes: V. 50, no. 3, p. 327–330, table 1, 1947.
2. See: Sabrosky, C. W. 1.

Nagge, J. W.

Seientific developments in psychology with implications for social change: V. 51, no. 4, p. 473–481, 1948.

Nakamura, Eugene L.

(and Smith, Hobart) A comparative study of selected characters in certain American species of watersnakes: V. 63, no. 2, p. 102–113, fig. 1–2, 1960.

Nelson, Bernard C.

See: Anderson, Sydney 1.

Nelson, Craig E.

Size and secondary sexual characters in the frog *Glossostoma alterrimum* Gunther: V. 65, no. 1, p. 87–88, fig. 1, 1962.

Nelson, Esther Bruner

(and Hall, Mina G.) The deterioration of silks by light of different wave lengths: V. 40, p. 301–303, 1938.

Newcomb, Margaret A.

A polygamous spirogyra: V. 40, p. 83–88, fig. 1–10, plate 1, 1938.

Newman, Edward B.

1. The validity of the just noticeable difference as a unit of psychological magnitude: V. 36, p. 172–175, tables 1–2, 1933.
2. See: Bartley, S. H. 1.

Newman, F. S.

(and Isenstark, A.) Comparison of chromatographic and microbiological assay methods for determination of nucleic acid in Newcastle virus: V. 64, no. 1, p. 7–15, 1961.

Newson, H. B.

Imaginary focal properties of conic: V. 12, p. 84–86, 1890.

Nibarger, Agnes

(and McKinley, Lloyd) Partial molal volumes of the binary systems—water cellasolve and water-carbitol: V. 41, p. 175, 1938.

Nichols, Edward L.

1. Experiments upon super-heated liquids and upon the super-saturation of vapors: V. 9, p. 91–95, 1885.
2. A classroom experiment on ebullition: V. 9, p. 27–38, 1885.
3. Statistics on color blindness in the University of Kansas: V. 9, p. 95–96, 1885.
4. On black and white: V. 10, p. 37–44, fig. 1–5, 1887.
5. (and Franklin, W. S.) On the destruction of passivity of iron in nitric acid by magnetization: V. 10, p. 13–19, fig. 1–3, 1887.
6. The sky: V. 10, p. 111–121, fig. 1–6, 1887.

Nininger, H. H.

1. A new Kansas meteorite: V. 31, p. 87–88, 1928.
2. Notes on Kansas meteorites, fall of December 17, 1923: V. 31, p. 88–91, 1928.
3. Pleistocene fossils from McPherson County, Kansas 1921–1924: V. 31, p. 96–97, 1928.

4. Another Kansas meteorite: V. 31, p. 91–94, 1928.
5. The bullock oriole in Kansas: V. 31, p. 99, 1928.
6. A new Kansas areolite referable to the fall of November 9, 1923: V. 31, p. 94–95, 1928.
7. The problematical hybrid grosbeak: V. 31, p. 98, 1928.
8. Notes on oxidation of certain meteorites and formation of meteorodes: V. 32, p. 63–67, fig. 1–6, 1929.
9. Kansas meteorites since 1925: V. 39, p. 169–183, fig. 1–7, 1937.
10. Kansas meteorite discoveries, 1873–1948: V. 52, no. 1, p. 110–112, 1949.
11. Significance of the Norton, Kansas meteorite: V. 52, no. 1, p. 113–115, 1949.
12. The Pierceville oxidized siderite: V. 56, no. 2, p. 255–256, 1953.

Nixon, C. William

See: Smith, Hobart M. 10.

Nixon, Earl K.

The petroleum industry in Kansas: V. 51, no. 4, p. 369–424, tables 1–20, 1948.

Nordin, Ivan C.

See: Burgstahler, Albert W.

Nordin, Phillip

Sorghum grain: the soluble sugars: V. 62, no. 3, p. 212–215, fig. 1–2, table 1, 1959.

Norton, J. B. S.

A bibliography of literature relating to the effects of wind on plants: V. 16, p. 103–105, 1899.

Novak, J. D.

See: Breukelman, J. 11.

Nusser, W. L.

See: Herrick, E. H. 11.

Oakes, Wm. F.

An alternative interpretation of "Absolute Pitch": V. 54, no. 3, p. 396–406, 1951.

Obee, D. J.

1. Noteworthy anatomical features from the wood of some indigenous Kansas shrubs and lianas: V. 37, p. 83–90, fig. 1–4, plate I, tables 1–3, 1934.
2. The occurrence of *Sclerotium delphinii* Welch in Kansas: V. 38, p. 105–106, 1935.
3. A note on the canker disease of gardenias: V. 39, p. 103–104, 1937.
4. Studies on the host range of *Sclerotium delphinii* Welch: V. 40, p. 89–94, fig. 1–4, 1938.

O'Connor, Howard G.

Notes on the ground-water resources of Chase County, Kansas: V. 52, no. 3, p. 399–405, table 1, fig. 1–2, 1949.

Oelrich, Thomas M.

A new testudo from the Upper Pliocene of Kansas with additional notes on associated Rexroad mammals: V. 55, no. 3, p. 300–311, fig. 1–4, 1952.

Older, Harry Jay

Personal experiences underlying the formulation of attitudes of liberalism and conservatism: V. 43, p. 345–347, 1940.

Olmsted, James M. D.
See: Fleming, David G. 1.

Olsen, Allen L.
1. (and Washburn, E. Roger) An interpolation table for refractive index-normality relationship for solutions of hydrochloric acid and sodium hydroxide: V. 40, p. 117–126, tables 1–2, 27 unnumbered, 1938.
2. (and Toomey, Rex F.) Surface structure and paint-adhesion mechanisms of softwoods: V. 42, p. 221–227, fig. 1–5, 1939.

Olson, Robert
See: Hermanson, Loe L. 2.

Oncley, Lawrence
The teaching of general chemistry: V. 40, p. 49–53, 1938.

Orazem, Frank
1. Mathematical programming—a new tool in agricultural economics research: V. 60, no. 4, p. 453–456, 1957.
2. See: Wearden, S.

O'Roke, Earl C.
1. Life cycles of certain trematodes: V. 28, p. 255, 1918.
2. Frogs and frogging: V. 30, p. 448–451, 1922.
3. Notes on larval trematodes from Laramie plains: V. 30, p. 195–196, 1922.

Orr, Tom G., Jr.
(and Latimer, Homer B.) The collateral circulation in the hind limb of the cat: V. 42, p. 481–482, 1939.

Osborn, Courtney D.
See: Palmer, Martin F. 1.

Osborn, W.
The cottonwood leaf beetle: V. 4, p. 25–26, 1875.

Otis, D. H.
Root tubercles and their production by inoculation: V. 16, p. 88–102, plates 6–8, tables 1–4, fig. 1–5, 1899.

Onye, L. G.
See: Kramer, C. L. 8.

Overman, Chauncey
Notes on some mosquitoes of Douglas County: V. 20, p. 133–135, 1906.

Owen, Don E.
See: Angino, Ernest E.

Owen, LaRue
See: Hershey, J. Willard 15.

Oyer, Earl R.
Identification of mammals from studies of hair structure: V. 49, no. 2, p. 155–160, plate 1, fig. I–IX; plate 2, fig. X–XIX, 1946.

Packard, Robert L.
1. Notes on the defensive behavior of gray and fox squirrels while moving their young: V. 57, no. 4, p. 471–472, 1952.
2. See: Fitch, Henry S. 2.
3. See: Stains, Howard J. 2.

Paddock, Winnifred

Spermatogenesis in *Chrysochus auratus*: V. 36, p. 275–282, fig. 1–18, plates 1–3, 1933.

Pady, S. M.

1. Variations in systemic infections of *Uromyces caladii*: V. 42, p. 151–155, fig. 1, plate unnumbered, table I, 1939.
2. Preliminary observation on the aecial hosts of *Melampsorella*: V. 43, p. 147–153, fig. 1–5, plate 1, 1940.
3. Further notes on the witches' brooms and the substomatal pycnic of *Melampsorella*: V. 44, p. 190–201, plates 1–3, fig. 1–14, 1941.
4. (and Johnston, C. O.; and Hansing, E. C.) Kansas mycological notes, 1945: V. 49, no. 2, p. 175–183, table 1, 1946.
5. (and Hansing, E. D.; and Johnston, C. O.) Kansas mycological notes, 1946: V. 50, no. 1, p. 45–54, tables 1–2, fig. 1–3, 1947.
6. An improved slit sampler for aerobiological investigations: V. 57, no. 2, p. 157–163, fig. 1–3, 1954.
7. (and Kramer, C. L.) Kansas aeromycology X: Basidiomycetes: V. 63, no. 3, p. 125–134, 1960.
8. See: Kramer, C. L. 8.
9. See: Kramer, C. L. 9.
10. See: Kramer, C. L. 10.
11. See: Kramer, C. L. 11.
12. See: Kramer, C. L. 12.
13. See: Kramer, C. L. 14.
14. See: Kramer, C. L. 15.

Painter, Reginald H.

1. Notes on type specimens and descriptions of new North American Bombyliidae: V. 42, p. 267–301, fig. 1 unnumbered on plate I; fig. 16 unnumbered on plate II, 1939.
2. The wheat stem sawfly in Kansas: V. 56, no. 4, p. 432–434, fig. 1–2, 1953.
3. See: Pathak, M. D.

Palmer, Martin

(and Osborn, Courtney D.) One thousand consecutive cases of speech defects: V. 41, p. 263–266, 1938.

Park, Helen

1. (and Hall, E. Raymond) The gross anatomy of the tongues and stomachs of eight New World bats: V. 54, no. 1, p. 64–72, fig. 1–34, 1951.
2. The heart and its vessels in some New World bats: V. 57, no. 2, p. 197–199, fig. 1–4, 1954.

Parker, John D.

1. Organization and history, Sept. 1, 1868: V. 1, p. 3–7, 1872.
2. The river bluffs: V. 5, p. 72–75, 1877.
3. Memorial of Professor Benjamin F. Mudge: V. 7, p. 7–11, 1881.
4. Mounds in Davis (Geary) County: V. 10, p. 72–73, 1887.

Parker, John H.

1. A review of the literature on the rusts of oats with notes on their distribution in the United States: V. 30, p. 71–118, table 14, 1922.
2. See: Johnston, C. O. 1.

Parker, J. S.

Notes on the photography of wild birds: V. 22, p. 369–375, photographs 1–3, 1909.

Parker, Ralph L.

1. The importance of honey production during war time: V. 47, no. 2, p. 191–193, 1944.
2. See: Rashad, Salah El-Din.

Parker, R. V.

See: Schoewe, Walter H. 7.

Parkert, C. W.

(and Perkins, A. T.; and Dragsdorf, R. D.) Decomposition of minerals by grinding: V. 53, no. 3, p. 386–397, fig. 1–9, 1950.

Parmalee, Paul W.

See: Smith, Philip W. 2.

Parmenter, C. S.

Fossil turtle cast from the Dakotah epoch: V. 16, p. 67, plate 4, 1899.

Parrish, D. B.

1. (and Caldwell, M. J.; and Schumacher, A. E.) The stability of vitamin A in an experimental poultry feed: V. 47, no. 3, p. 375–379, unlabeled chart, 1945.
2. (and Alm, O. W.; Shimer, E. Roberta; and Hughes, J. S.) The similar effect of rations containing butter fat or corn oil upon the maze-learning ability of rats: V. 50, no. 3, p. 331–337, tables 1–2, fig. 1, 1947.
3. See: Caldwell, M. J. 3.

Parrott, Percy J.

The elm twig-girdler (*Oncideras cingulatus* Say): V. 16, p. 200–202, fig. 1–4, 1899.

Paslay, Lucille A.

(and Brooks, Travis E.) Antibiotic production in the Gymnoascaceae with reference to the nitrogen source: V. 53, no. 1, p. 55–63, plate 1, tables 1–2, 1950.

Pathak, M. D.

(and Painter, R. H.) Geographical distribution of the four biotypes of corn leaf aphid, *Rhopalosiphum maidis* (Fitch) in Kansas: V. 62, no. 1, p. 1–8, fig. 1–5, 1959.

Patrick, G. E.

1. (and Aubert, Alfred B.) On determining the solubilities of metallic salts: V. 3, p. 117–120, fig. 1–2 unnumbered, 1874.
2. Kansas chalk: V. 4, p. 13–15, 1875.
3. Analysis of Kansas soils: V. 4, p. 15–16, 1875.
4. Analysis of salt: V. 4, p. 17, 1875.
5. The Waconda meteorite: V. 5, p. 13–14, 1877.
6. The Iola gas well: V. 5, p. 14–16, 1877.
7. The Great Spirit spring: V. 7, p. 22–26, 1881.
8. Protozoan remains in Kansas chalk: V. 8, p. 26–27, fig. A–G, 1883.

Patton, Helen M.

See: Taft, Robert 42.

Pattly, F. A.

(and Sayre, L. E.) A kitchen disinfectant: V. 30, p. 362–366, 1922.

Pauli, A. W.

1. See: Mitchell, H. L. 5.
2. See: Stickler, F. C. 2.

Payne, Sister M. Anthony

1. Are mitochondria dynamic cytoplasmic structures?: V. 36, p. 283–297, fig. 1–10, plates 1–2, 1933.
2. The third dimension in the teaching of biology: V. 41, p. 295–298, fig. 1, 1938.

Pelon, W.

See: Eisenstark, A. 1.

Peniston, Francis L.

(and Harris, John O.) A study of the respiration of *Micrococcus lysodeikticus* in the presence of lysozyme: V. 56, no. 1, p. 67–73, fig. 1, tables 1–2, 1953.

Peppler, H. J.

1. (and Twiehaus, M. J.) *Equine sporotrichosis*: V. 45, p. 40–46, fig. 1–7, 1942.
2. The heat resistance of *Streptococcus thermophilus* grown in mixed culture with caseolytic bacteria: V. 45, p. 36–39, tables I–III, 1942.
3. Acid liquid media for the isolation of fungi: V. 46, p. 80, 1943.

Perkins, Alfred T.

1. Symmetry in visual memory: V. 33, p. 48, 1930.
2. (and Barham, H. N.; and King, H. H.) Exchangeable bases by soxhlet extraction: V. 35, p. 144–145, table 1, 1932.
3. (and King, H. H.) Base exchange in soils: V. 38, p. 163–170, tables 1–4, 1935.
4. (and Merrill, J. F.) Comparative analyses of molasses: V. 40, p. 131–133, tables 1–2, 1938.
5. (and Horne, LeRoy; and King, H. H.) Humidity and specific gravity of soil particles: V. 40, p. 127–129, tables 1–2, 1938.
6. (and Metzger, W. H.; and King, H. H.) Phosphorous absorption by wheat as influenced by applications of lime and phosphorus: V. 42, p. 229–232, tables I–III, 1939.
7. Phosphate fixation by soil, minerals IV General: V. 48, no. 2, p. 209–217, 5 unnumbered graphs, 1945.
8. Structure of kaolin and related minerals: V. 50, no. 2, p. 208–215, fig. I–VI, 1947.
9. (and Schrenk, W. G.) The analysis and characteristics of selected Kansas soils: V. 51, no. 2, p. 215–223, tables I–VIII, graphs 1–2, 1948.
10. (and Mitchell, Howard L.) Differential thermal analysis of organic compounds: V. 60, no. 4, p. 437–440, plates I–X, 1957.
11. See: Parkert, C. W. 1.

Perry, Kenneth

See: Leone, Charles A. 5.

Peterka, H. E.

A study of the myology and osteology of tree sciurids with regard to adaptation to arboreal, glissant, and fossorial habits: V. 39, p. 313–332, 1937.

Peters, Kay

A physiological study of the effect of hibernation on the ornate box turtle: V. 62, no. 1, p. 15–20, 1959.

Peterson, H. J.

1. See: Peterson, J. C. 3.
2. See: Peterson, J. C. 4.

Peterson, J. C.

1. A new device for use in teaching, testing, and research in learning: V. 33, p. 31–47, fig. 1–3, 1930.
2. The value of guidance in reading for information: V. 34, p. 291–296, tables 1–3, 1931.
3. (and Peterson, H. J.) Reducing the cost of tests without impairment of their value: V. 35, p. 132–140, 1932.
4. (and Peterson, H. J.; and Higginbottom, H. H.) Further economics and new values in objective testing: V. 36, p. 176–180, 1933.

5. An economical method of scoring tests with differentially weighted items: V. 37, p. 187–188, 1934.
6. Further observations concerning centripetal drift: V. 43, p. 349–354, 1940.
7. (and Strickland, V. L.) The preparation and certification of workers in guidance and student counseling: V. 44, p. 369–371, 1941.
8. Some factors and pitfalls in the application of knowledge: V. 51, no. 4, p. 437–452, 1948.
9. A uniform test of mental performance: V. 58, no. 2, p. 259–264, tables 1–9, 1955.

Pettit, Edison

1. Observations on Jupiter at the opposition, 1915: V. 28, p. 49–50, 1916.
2. Celestial photography with the Washburn telescope: V. 28, p. 51–52, 1918.
3. Note on a device for settling a heliostat in the meridian: V. 28, p. 53, 1918.

Pettit, Robert M.

Vertebrate remains in barn owl pellets from Stanton County, Kansas: V. 54, no. 3, p. 395, table 1, 1951.

Piemeisel, R. L.

See: Shantz, H. L.

Pittman, Martha S.

See: Atkinson, Esther 1.

Plank, E. N.

A preliminary notice of the flora of Montgomery County, Kansas: V. 8, p. 33–34, 1883.

Plenert, M. L.

See: West, R. R.

Poindexter, Jerold D.

Natural hybridization among *Verbena stricta*, *V. hastata*, and *V. urticifolia* in Kansas: V. 65, no. 4, p. 409–419, fig. 1–6, 1962.

Pond, Karl S.

See: Carman, J. Neale 1.

Ponder, Luke H.

See: Leonard, A. Byron 4.

Ponder, Wanda

See: Gier, L. J. 9.

Pool, B. E.

(and Sayre, L. E.) The value of corn oil as a substitute for olive oil and cottonseed oil: V. 26, p. 41–42, 1914.

Popenoe, Edwin A.

1. A list of Kansas Coleoptera: V. 5, p. 21–40, 1877.
2. Additions to the catalogue of Kansas Coleoptera: V. 6, p. 77–86, 1878.
3. Contributions to a knowledge of the Hemiptera-fauna of Kansas: V. 9, p. 62–64, 1885.
4. List of Unionidae collected in Kansas rivers, with localities: V. 9, p. 78–79, 1885.
5. Note on the oviposition of a wood-borer: V. 12, p. 15–16, 1890.

Popp, Frank D.

(and McEwen, W. E.) Polyphosphoric acid as a reagent in organic chemistry, II: V. 63, no. 3, p. 169–193, 1960.

Porter, Fred B.

1. Analysis of the Mississippian (Subcarboniferous) limestone from the Atchison prospect well: V. 17, p. 52, 1901.
2. Crystalline liquids: V. 18, p. 54–56, 1903.

Portrum, Donald C.

A supplementary method of color-discrimination for the red-green color blind: V. 36, p. 181–185, table 1, 1933.

Potter, A. A.

Factors influencing the teaching of science and engineering: V. 30, p. 69–71, 1922.

Potter, Myra

(and Kramer, M. M.) Some observations of the effect of the addition of iron to an adequate diet: V. 32, p. 31–33, 1929.

Powell, Jackson O.

See: Cottle, Wm. C. 1.

Powell, L. M.

See: Bailey, E. H. S. 4.

Pownall, Jo. E.

See: Cottle, W. C. 3.

Price, John H.

Parasitism in *Aphyllon uniflorum*: V. 14, p. 132, 1896.

Price, John N., Jr.

Rock exposures about Atchison: V. 14, p. 218–219, fig. 1 unnumbered, 1896.

Prickett, Marjorie

1. See: Harman, Mary T. 3.
2. See: Harman, Mary T. 4.
3. See: Harman, Mary T. 5.
4. See: Harman, Mary T. 6.

Prince, S. Fred

See: Gates, Frank C. 13.

Prophet, Carl

A winter population of *Streptocephalus seali* Ryder inhabiting a roadside ditch in Lyon County, Kansas: V. 62, no. 2, p. 153–161, fig. 1–2, 1959.

Pronko, N. H.

1. (and Snyder, F. W.; and Allen, G. W.) Changing orientations toward the role of physiological factors in psychopathology: V. 52, no. 3, p. 386–395, 1949.
2. (and Bowles, J. W., Jr.) A progress report on some experiments with cola beverages: V. 52, no. 1, p. 82–85, tables I–VI, 1949.
3. (and Snyder, F. W.) Ethical reactions and socio-economic level: V. 53, no. 4, p. 544–547, tables I–II, 1950.
4. The organism in physiology and in psychology: V. 57, no. 4, p. 501–508, 1954.
5. See: Synolds, D. L. 1.

Puffinbarger, J. P.

See: Rizzo, Nicholas D. 2.

Radcliffe, H.

See: Blake, Lucien 3.

Rainey, Dennis G.

1. (and Stains, Howard J.) Early seasonal record of the red bat in Kansas: V. 57, no. 1, p. 85, 1954.
2. (and Robinson, Thane S.) Food of the long-eared owl in Douglas County, Kansas: V. 57, no. 2, p. 206–207, table 1, 1954.
3. Observations on the white-footed mouse in eastern Kansas: V. 58, no. 2, p. 225–228, 1955.

Randolph, Vance

1. A list of butterflies of Crawford County, Kansas: V. 30, p. 59–61, 1922.
2. A preliminary study of the life history and habits of *Dione vanillae*: V. 30, p. 351–360, 1922.

Rankin, Roy

1. See: Search, Herman 1.
2. An investigation of the composition of the mother liquor of the dimethyl acetal of alpha-hydroxy-beta-methoxy-beta-phenyl propiopheonone: V. 35, p. 158–160, 1932.
3. See: Runyon, H. Everett 1.
4. See: Runyon, H. Everett 3.

Rapaport, David

1. Recent developments in clinical psychology: V. 45, p. 290–293, 1942.
2. See: Reichard, Suzanne.

Rarick, Lawrence

The lime content of rocks of the Upper Cretaceous system of Ellis County, Kansas: V. 39, p. 121–126, fig. 1, tables 1–2, 1937.

Rashad, Salah El-Din

(and Parker, Ralph L.) Pollen as a limiting factor in brood rearing and honey production during drought years, 1954, 1955, and 1956: V. 61, no. 3, p. 237–248, fig. 1–2, 1958.

Raymond, H. L.

Ultramarine blue in sugars: V. 11, p. 25, 1889.

Read, B. W.

1. (and Read, W. G.; and Zinszer, H. A.) Proper mixtures of Ellis County soils for adobe construction and their physical properties: V. 52, no. 4, p. 422–437, tables I–V, fig. 1–3, 1949.
2. (and Read, W. G.; and Zinszer, H. A.) Proper mixtures of Ellis County soils for adobe construction, and their physical properties: V. 53, no. 4, p. 557–577, tables I–VI, fig. 1–9, 1950.

Read, W. G.

1. See: Read, B. W. 1.
2. See: Read, B. W. 2.

Reagan, Albert B.

1. Notes on the flora of the Rosebud Indian Reservation, South Dakota: V. 20, p. 190–196, 1906.
2. Dances of the Memez Pueblo Indians: V. 20, p. 241–272, fig. 1–9 unnumbered, 1907.
3. Some geological studies on northwestern Washington and adjacent British territory: V. 20, p. 95–121, maps 1–2, unnumbered, plates 1–2, fig. 1–19, 1907.
4. Animals, reptiles, and amphibians of the Rosebud Indian Reservation, South Dakota: V. 21, p. 163–164, 1908.
5. Sketches of Indian life and character: V. 21, p. 207–214, 1908.

6. Some sea shells from LaPush, Washington: V. 21, p. 168–177, plates 1–4, fig. 3, 5–10, 13–16, 18–19, 24–28, 32, 34, 37, 40–41, 43–46, 58–59c, 63, 64, 69, 71–93, 1908.
7. Summary of glacial literature relating to glacial deposits: V. 21, p. 86–110, 1908.
8. Sketches of Indian life and character: V. 23, p. 141–149, 1909.
9. Some notes on the Olympic Peninsula, Washington: V. 22, p. 131–238, plates 1–6, fig. 1–65, fig. 1–4 unnumbered, map 1 unnumbered, 1909.
10. Birds of the Olympic Peninsula, Washington: V. 24, p. 242–272, 1910.
11. The glacial epoch: V. 26, p. 70–83, 1914.
12. The marine Tertiary stratigraphy of the North Pacific coast of North America—a review: V. 27, p. 47–49, 1915.
13. A probable origin of the rings of Saturn: V. 27, p. 43–46, 1915.
14. Birds of the Bois Fort Indian Reservation and adjacent territory in Minnesota: V. 28, p. 232–240, 1918.
15. The Shoshoni-Goship Indians: V. 28, p. 227–232, 1918.
16. Correlation of the formations described in the Fort Apache region in Arizona with similar formations in other parts of the state: V. 29, p. 178–180, 1920.
17. The mine center mining district, Ontario, and adjacent territory in the United States: V. 29, p. 181–183, 1920.
18. A plague of cholera infantum at Nett Lake, Minnesota in the fall of 1913: V. 29, p. 185–186, 1920.
19. Archaeological notes on Pine River Valley, Colorado, and the Keyenta-Tuba region, Arizona: V. 30, p. 245–331, pictures 1–8, plates 1–2, 1922.
20. Archaeology of the Tuba-Kayenta region: V. 30, p. 394–429, plates 1–6, pictures 1–3, 1922.
21. Concluding report on the archaeology of the Tuba-Kayenta region: V. 31, p. 142–145, map 1, 1922.
22. Flood myths of the Bois Fort Chippewas: V. 30, p. 437–443, 1922.
23. The "Flu" among the Navajos: V. 30, p. 131–138, 1922.
24. Glacial deposits in the Pine River Valley, Colorado: V. 30, p. 129–130, 1922.
25. Hunting and fishing of various tribes of Indians: V. 30, p. 443–448, 1922.
26. Plague among chickens in central Iowa during the summer of 1918: V. 30, p. 130, 1922.
27. Probable Eocene glacial deposits in the Fort Apache region, Arizona: V. 30, p. 126–129, 1922.
28. Some notes of the Lumni-Noonsack Indians, Washington: V. 30, p. 429–437, 1922.
29. Some suggestions on climate: V. 30, p. 139, 1922.
30. Archaeology of the cornfields—Ganado region, Arizona: V. 31, p. 146–185, fig. 1–2, map 2, 1923.
31. Archaeology of the cornfields—Ganado region, Arizona, 1924 report: V. 31, p. 186–195, fig. 3, 1928.
32. Archaeology of the cornfields—Ganado region, Arizona, 1925 report: V. 31, p. 196–201, fig. 4, 1928.
33. Archaeology of the cornfields—Ganado region, Arizona, 1926 report: V. 31, p. 202–207, 1928.
34. Archaeology of the cornfields—Hopi Buttes field, Arizona, 1927 report: V. 31, p. 207–211, 1928.
35. Archaeology of the cornfields region, Arizona: V. 31, p. 211–216, 1928.
36. Pottery types in the cornfields—Hopi Buttes region, Arizona: V. 31, p. 217–279, plate A, fig. 1–4, tables 1–2; plate B, fig. 1–4; plate C, fig. 1–4; plate D, fig. 1–3; plate E, fig. 1–4, 1928.
37. Geology of the Deep Creek Reservation, Utah: V. 32, p. 104–116, maps 1–2, 1929.
38. Archaeological notes on the Fort Apache region: V. 33, p. 111–132, map 1, pictures 1–4, 1930.
39. The pictographs of Ashley and Dry Fork valleys in northeastern Utah: V. 34, p. 168–216, fig. 1–7, 1931.

40. Geological notes on the Fort Apache region, Arizona: V. 35, p. 260–273, map 1, 1932.
41. Some geological notes of the Upper Cretaceous of Black Mesa, Arizona: V. 35, p. 232–252, plate 1-F, 1932.
42. The Tertiary-Pleistocene of the Navajo country, Arizona with a description of some of its included fossils: V. 35, p. 253–259, plate 1, 1932.
43. Anciently inhabited caves of the Vernal (Utah) district, with some additional notes on Nine Mile Canyon, northeast Utah: V. 36, p. 41–70, fig. 1–20, plates 1–8, 1933.
44. Additional archaeological notes on the Uintah Basin in northwestern Utah: V. 37, p. 39–54, fig. 1–5, 1934.
45. Plants used by the Hoh and Quileute Indians: V. 37, p. 55–70, 1954.
46. Some myths of the Hoh and Quillayute Indians: V. 38, p. 43–87, 1935.

Reardon, Anna Joyce

The solarized latent photographic image: V. 42, p. 385–388, fig. 1–2, 1939.

Redstone, Marion

See: Leone, Charles A. 8.

Reed, Charles A.

(and Marx, Hymen) A herpetological collection from northeastern Iraq: V. 62, no. 1, p. 91–122, fig. 1–6, 1959.

Reed, Homer B.

1. Comparative achievement in high school of graduates from graded and ungraded elementary schools: V. 41, p. 267–270, tables 1–2, 1938.
2. Some contributions of psychology to the war effort: V. 46, p. 298–302, 1943.
3. Why do some colleges reach a higher level of achievement than others: V. 47, no. 1, p. 111–121, tables 1–5, fig. 1–2, 1944.
4. The influence of set on the learning and retention concepts: V. 47, no. 3, p. 391–403, tables I–III, 1945.
5. The number of exceptional children in Kansas: V. 49, no. 3, p. 333–345, tables 1–5, 1946.
6. Trends in science teaching in Kansas high schools for the years 1940–1950: V. 54, no. 4, p. 515–525, tables 1–12, 1951.

Reed, Minnie

1. Some notes on condensed vegetation in western Kansas: V. 13, p. 91–96, 1893.
2. Ferns of Wyandotte County, Kansas: V. 14, p. 150–151, 1896.
3. Kansas mosses: V. 14, p. 152–199, plates 1–35.
4. Long continued blooming of *Malvastrum coccineum*: V. 14, p. 132, 1896.

Reese, Robert W.

(and Firschein, I. Lester) Herpetological results of the University of Illinois field expedition, 1949: V. 53, no. 1, p. 44–54.

Rehn, James A. G.

Notes and descriptions of Orthoptera from the western United States in the entomological collections of the University of Kansas: V. 19, p. 221–231, plate 28, 1905.

Reichard, Suzanne S.

(and Schneider, Marion; and Rapaport, David) The development of concept formation in children: V. 46, p. 220–223, tables I–III, 1943.

Reinisch, E. F. A.

The weakening effect on a species of plants being continually reproduced by artificial means: V. 30, p. 62–63, 1922.

Reiser, Ralph

(and Tasch, Paul) Investigation of the viability of osmophile bacteria of great geology age: V. 63, no. 1, p. 31–34, 1960.

Reitz, Louis P.

1. Indications of hail resistance among varieties of winter wheat: V. 45, p. 128–137, tables 1–5, fig. 1–2, 1942.
2. (and Johnston, C. O.; and Anderson, K. L.) New combinations of genes in wheat × wheatgrass hybrids: V. 48, no. 2, p. 151–159, tables I–II, fig. 1–3, 1945.

Renich, Paul W.

(and Taft, Robert) The electrodeposition of lead in the presence of wetting agents: V. 48, no. 2, p. 169–185, 13 unnumbered tables, 1945.

Reynolds, Charles A.

1. See: Lichtenstein, Ivan.
2. See: Mohilner, P. R.

Reynolds, Floyd

Psychological problems involved in the private employment of non-school NYA young people in Ellis County: V. 42, p. 397–400, 1939.

Rice, Mary A.

1. See: Bailey, E. H. S. 18.
2. The inverse of conics and conicoids from the center: V. 14, p. 14–28, 1896.

Riddell, W. H.

1. See: Kunerth, Bernice L. 2.
2. See: Kunerth, Bernice L. 5.

Riedesel, Marvin

Serum magnesium levels in mammalian hibernation: V. 60, no. 2, p. 99–141, table XII, fig. 1–6, 1957.

Riegel, Andrew

1. A study of the variations in the growth of the blue grama grass from seed produced in various sections of the Great Plains region: V. 43, p. 155–171, tables 1–9, plates 1–2, fig. 1–5, 1940.
2. Life history and habits of blue grama: V. 44, p. 76–85, fig. 1–8, 1941.
3. Some coactions of rabbits and rodents with cactus: V. 44, p. 96–103, table 1, fig. 1–5, 1941.
4. Some observations of food coactions of rabbits in western Kansas during periods of stress: V. 45, p. 369–375, table I, 1942.
5. A source study of blue grama grass and the effect of different treatments on establishing stands of grass under field conditions at Hays, Kansas: V. 46, p. 102–109, tables I–III, fig. 1–3, 1943.
6. A comparative study of natural and artificial revegetation of land retired from cultivation at Hays, Kansas: V. 47, no. 2, p. 195–214, tables 1–3, fig. 1–12, 1944.
7. Forage yields (1945) of various native pasture grasses established artificially at Hays, Kansas, in 1941: V. 50, no. 2, p. 174–190, tables I–III, fig. 1–6, 1947.
8. (and Albertson, F. W.; and Hopkins, Harold H.) Yields and utilization of forage on a mixed prairie in west central Kansas: V. 53, no. 4, p. 455–472, tables 1–2, fig. 1–8, 1950.
9. See: Bugbee, Robert E. 4.
10. See: Hopkins, Harold 2.

Riegel, D. A.

See: Hopkins, Harold H. 3.

Riesen von, V. Lyle

Studies on bacteria-surface active agent relationships, I, decomposition of anionic SAA by bacteria: V. 58, no. 3, p. 337–344, table 1, fig. 1–5, 1955.

Riggs, E. S.

A rare cameloid from the late Pleistocene sands of southwestern Kansas: V. 48, no. 1, p. 101–104, fig. 1–2, 1945.

Riley, C. V.

Locust flights east of the Mississippi: V. 5, p. 62–64, 1877.

Rinker, George C.

Litter records of some mammals of Meade County, Kansas: V. 45, p. 376–378, 1942.

Rizzo, Nicholas D.

1. Relation between reading tests scores and freshman grades: V. 38, p. 247–257, 1935.
2. (and Puffinbarger, J. O.) A remedial program for probationary college students: V. 39, p. 231–235, 1937.

Roan, C. C.

See: Kaplanis, John N.

Robertson, George M.

1. Monument Rocks, Gove County, Kansas—geology: V. 42, p. 325–326, 1939.
2. An Upper Silurian vertebrate horizon, with description of a new species, *Cephalaspis oeselensis*: V. 42, p. 357–363, unnumbered plate, fig. 1–2, 1939.
3. I Geology—the Castle Rock area in Gove County, Kansas: V. 43, p. 301–302, 1940.
4. The sensory canal system in some early vertebrates: V. 43, p. 467–471, plate 1, fig. 1–3, 1940.
5. *Witaspis patteni*, a new ostracoderm from the Upper Silurian of Oesel: V. 43, p. 297–298, plate 1, 1940.
6. The ostracoderm order Anaspida, with description of some Upper Silurian material: V. 44, p. 314–317, fig. 1, 1941.
7. (and Sternberg, George F.) Fossil mammal tracks in Graham County, Kansas: V. 45, p. 258–261, fig. 1–5, 1942.

Robinson, Thane S.

1. (and Baker, Rollin H.) Climatic factors affecting the 1951 Kansas bobwhite population as shown by examination of wings from hunter-killed birds: V. 55, no. 3, p. 287–296, fig. 1–5, table 1, 1952.
2. (and Baker, R. H.) Climatic factors affecting Kansas bobwhites in 1952: V. 56, no. 3, p. 315–320, fig. 1–2, 1953.
3. (and Baker, R. H.) Climatic factors affecting Kansas bobwhites in 1953: V. 57, no. 3, p. 298–302, fig. 1–2, 1954.
4. (and Baker, R. H.) Climate and bobwhite quail in Kansas, 1951–1954: V. 58, no. 3, p. 353–359, fig. 1–2, 1955.
5. Climate and bobwhites in Kansas in 1956: V. 60, no. 3, p. 283–287, 1957.
6. Climate and bobwhites in Kansas in 1955: V. 59, no. 2, p. 206–212, tables 1–2, fig. 1, 1956.
7. Notes on the development of a brood of Mississippi kites in Barber County, Kansas: V. 60, no. 2, p. 174–180, fig. 1, table 1, 1957.
8. See: Rainey, Dennis G. 2.

Robinson, W. J.

Some factors affecting amount and nature of flora in central Kansas: V. 32, p. 55–59, 1929.

Roemer, Raymond F.

The effects of different intensities of grazing upon three varieties of wheat in western Kansas: V. 46, p. 110–114, 1943.

Rogers, Burton R.

Tuberculosis: V. 21, p. 141–149, 1908.

Rogers, Nelson F.

The growth and development of black walnut (*Juglans nigra* L.) on the coal strip-mined land in southeast Kansas: V. 52, no. 1, p. 99–104, 1949.

Rogerson, Clark T.

1. Kansas mycological notes, 1951: V. 56, no. 1, p. 53–57, 1953.
2. Kansas mycological notes, 1952: V. 57, no. 3, p. 280–284, 1954.
3. Kansas mycological notes, 1953–1954: V. 59, no. 1, p. 39–48, 1956.
4. Kansas mycological notes, 1955–1956: V. 60, no. 4, p. 370–375, 1957.
5. Kansas mycological notes, 1957: V. 61, no. 3, p. 262–272, 1958.
6. Kansas aeromycology I. Comparison of media: V. 61, no. 2, p. 155–162, 1958.
7. See: Hansing, E. D. 5.
8. See: Hansing, E. D. 6.
9. See: Kramer, C. L. 8.
10. See: Kramer, C. L. 9.
11. See: Kramer, C. L. 10.
12. See: Kramer, C. L. 11.
13. See: Shaffer, Robert 1.
14. See: Slagg, C. M. 1.
15. See: Swarup, Gopal.

Roofe, Paul G.

1. (and Bingham, Hal G.; and Comer, Ralph) Effect of radiation from intraperitoneally injected radium chloride upon megakaryocyte and blood platelet production in albino rats: V. 54, no. 3, p. 391–394, fig. 1–2, 1951.
2. (and Lesher, Samuel W.) Recent advances in the study and techniques of anatomy: V. 54, no. 2, p. 115–129, 1951.
3. Research and medical education: V. 54, no. 1, p. 23–27, 1951.
4. The science of anatomy in an integrated program: V. 58, no. 1, p. 1–8, 1955.
5. A preliminary report on bioelectric potentials in embryos: V. 58, no. 3, p. 412–413, fig. 1, 1955.
6. See: Azarnoff, Daniel L. 1.
7. See: Comer, Ralph D. 1.
8. See: Howieson, John L. 1.
9. See: Russell, Marion F., Jr. 1.

Ross, Bennington

(and Hall, Harry H.) A preliminary survey of the flora of Crawford County State Park, Kansas: V. 42, p. 157–164, map unnumbered, 1939.

Roth, E. A.

1. See: Baxter, R. W. 3.
2. See: Baxter, R. W. 4.

Runnels, Russell T.

1. See: Carlson, William A. 1.
2. See: Swineford, Ada 1.

Runyon, H. Everrett

1. (and Rankin, Roy) The bromide and iodine content of the subsurface waters of Russell, Ellis, and Trego counties, Kansas: V. 39, p. 127–128, table 1, 1937.

2. Distribution of seeds by dust storms: V. 39, p. 105–113, tables 1–3, 1937.
3. (and Rankin, Roy) Some oil well waters of Russell, Ellis and Trego counties: V. 43, p. 235–241, tables 1–4, 1940.

Runyon, Noel R.

1. The effect of season of growth and clipping of blue grama (*Bautelona gracilis*) at Hays, Kansas: V. 46, p. 116–121, tables I–II, fig. 1–2, 1943.
2. The chemical composition of forbs in the native pastures at Hays, Kansas: V. 49, no. 4, p. 441–443, table 1, 1947.

Russell, Marion F., Jr.

(and Roofe, Paul G.) An experimental approach to the origin of blood platelets: V. 58, no. 4, p. 531–544, tables 1–3, fig. 1–6, 1955.

Russell, Ned M.

Methods employed by first-grade children in solving arithmetic problems: V. 39, p. 237–238, 1937.

Russell, Robert J.

(and Jones, J. Knox, Jr.) The taxonomic status of *Geomys bursarius vanaceus* Swenk: V. 58, no. 4, p. 512–513, 1955.

Sabrosky, C. W.

(and Larson, Iva; and Nabours, Robert K.) Experiments with light upon reproduction, growth, and dispause in grouse locusts *Acrididae, tetriginae*: V. 36, p. 298–300, 1933.

Sadler, H. E.

1. Coal-oil legislation: V. 9, p. 36–39, 1885.
2. On the testing of burning fluids: V. 9, p. 39–40, 1885.

Saffry, Olga

1. (and Harman, Mary T.; and Kramer, Martha M.) Endometrial hyperplaisia as observed in experimental guinea pigs: V. 40, p. 389–390, 1938.
2. (and Finerty, John C.) Injection of corpora lutea extract in pregnant guinea pigs on a vitamin C limited diet: V. 42, p. 483–485, 1939.

Salmon, S. C.

Some factors in the winter-killing of grain crops: V. 28, p. 129–131, 1918.

Samson, Fred

(and Colip, Floyd; and Patterson, Jenanne) Procedure for the use of sodium pentobarbital (Nembutal) anesthesia in classroom experiments with rats: V. 60, no. 4, p. 425–428, fig. 1, table 1, 1957.

Sanders, Ottys

(and Smith, Hobart M.) Some noteworthy records of amphibians in Texas: V. 52, no. 1, p. 28–29, 1949.

Sandidge, Lewis L.

Food and dens of the opossum (*Didelphis virginiana*) in northwestern Kansas: V. 56, no. 1, p. 97–106, table 1, 1953.

Sargent, Helen

1. See: Ekstein, Rudolf 1.
2. See: Ekstein, Rudolf 3.

Sarle, Charles E.

Recent developments in meteorological research: V. 42, p. 369–375, 1939.

Sarracino, John

See: Breukelman, John 1.

Sarvis, Byron

An experimental study of rhythms: V. 34, p. 274–275, 1931.

Sauer, R. C.

Some factors in the morphogenesis of embryonic epithelia: V. 39, p. 333, 1937.

Saunders, William H.

1. Coals of Kansas: V. 1, p. 30–34, fig. 1 unnumbered, 1872.
2. Limestones and coal: V. 1, p. 35–36, 1872.
3. Analysis of clays: V. 3, p. 99–100, 1874.

Savage, Jay M.

1. Notes on a Central American snake *Conophis lineatus dunni* Smith, with a record from Honduras: V. 52, no. 4, p. 483–486, 1949.
2. Third record of the Ecudorian caecilian *Gymnopis albiceps* with remarks on the status of the genus *Dermophis*: V. 56, no. 3, p. 321–324, 1953.
3. Notulae herpetologicae 1–7: V. 57, no. 4, p. 326–334, 1954.

Savage, Joseph

1. On the bite of the rattlesnake: V. 6, p. 36–38, 1878.
2. On mastodon remains in Douglas County: V. 6, p. 11–12, 1878.
3. Sink holes in Wabaunsee County: V. 7, p. 26–27, 1881.
4. Stone implements in Trego County: V. 7, p. 57–58, 1881.
5. Christening Amethyst Mountain: V. 9, p. 105–106, 1885.
6. Notes on the geology of the Spanish Peaks: V. 9, p. 113–114, 1885.
7. Some lightning freaks in 1883: V. 9, p. 41–42, 1885.
8. The pink and white terraces of New Zealand: V. 11, p. 26–30, 1889.

Sayre, L. E.

1. Locoweed: V. 10, p. 65–70, fig. 1 unnumbered, 1887.
2. Examination of the resinous exudation: V. 11, p. 103, 1889.
3. Is the alkaloidal strength of tea an index of its commercial value: V. 11, p. 50–51, 1889.
4. Solubility of chrome yellow in the gastric juice: V. 11, p. 23–24, 1889.
5. The quality of commercial papers: V. 11, p. 51–52, 1889.
6. Estimation of volatile oil in mustard: V. 12, p. 59–60, 1890.
7. The manufacture of binding twine: V. 12, p. 19–20, 1890.
8. A new frame for the pocket microscope: V. 12, p. 18, 1890.
9. (and Kellogg, V. L.) Some experimental tests of the Pasteur filter: V. 12, p. 122–129, 1890.
10. A study of the albuminoids: V. 12, p. 16–18, 1890.
11. The extractive yield of various important vegetable medicinal substances: V. 13, p. 120, 1893.
12. Therapeutic values of some recently introduced chemicals: V. 13, p. 28–29, 1893.
13. The variable chemical composition of plants at different seasons illustrated by *Teraxacum dens-leonis*: V. 13, p. 106–107, 1893.
14. Diluted acetic acid as a solvent for extractive substances: V. 14, p. 44, 1896.
15. Further experiments on taraxacum root, with a view of ascertaining its varied chemical composition at different seasons: V. 14, p. 42–43, 1896.
16. Therapeutical notes and descriptions on parts of medicinal plants growing in Kansas: V. 16, p. 85–88, 1899.
17. Loco weed: V. 18, p. 141–144, plate 1 unnumbered, 1903.
18. Food preservatives—how far are they injurious to health?: V. 19, p. 51–55, 1905.
19. Bibliography of the loco weeds: V. 19, p. 194–197, 1905.
20. Echinacea roots: V. 19, p. 209–213, 1905.
21. Coffee and estimation of its value: V. 20, p. 37–43, 1907.
22. Drug standards with reference to the Pure Food and Drug Law: V. 20, p. 48–51, 1907.

23. The chemical processes for the detection of organic substances and medicinal chemicals: V. 20, p. 50–52, 1906.
24. The botanical features of the new U. S. pharmacopoeia: V. 20, p. 185–187, 1906.
25. The relation of public health to quality of medicines: V. 21, p. 54–56, 1908.
26. Percentage of an extractive as a means of identification and analysis of drugs and spices: V. 21, p. 57–59, 1908.
27. Memorial Address—Dr. Snow as teacher: V. 22, p. 38, 1909.
28. Analysis of spices: V. 22, p. 96–99, 1909.
29. Report on analyses of preparations under the Pure Food and Drugs Law: V. 22, p. 100–101, 1909.
30. Loco weed and loco poison: V. 23, p. 49–52, 1909.
31. Analysis of food accessories under the Food and Drugs Law: V. 23, p. 53–55, 1909.
32. An investigation of millet: V. 24, p. 189–191, 1910.
33. Some problems connected with the administration of the drug end of the Food and Drug Law: V. 24, p. 192–193, 1910.
34. Nostrums: V. 25, p. 29–35, 1913.
35. Standardization of insecticides and disinfectants: V. 25, p. 37–40, 1913.
36. Insecticides: V. 25, p. 138–141, 1913.
37. Improvement in the commercial supply of spices and cause of the same: V. 26, p. 43–46, 1914.
38. Corn oil: V. 27, p. 74–75, 1915.
39. (and Stevenson, A. E.) Muscale buttons: V. 27, p. 105–108, 1915.
40. Cultivation of medicinal plants in the United States: V. 27, p. 110–113, 1915.
41. *Prunella vulgaris*: V. 27, p. 108–109, 1915.
42. Artificial rubber: V. 28, p. 142–143, 1918.
43. Cultivation of medicinal plants in the United States: V. 28, p. 133–136, 1918.
44. Isolation of toxic principles of coffee and the determination of their toxicity: V. 28, p. 136–141, 1918.
45. Corn oil and a new point of view in food values: V. 28, p. 143–146, 1918.
46. Early history of pharmaceutical-medical chemistry: V. 29, p. 49–52, 1920.
47. War bread, cornstarch, and high protein flour mixtures for baking: V. 29, p. 103–112, 1920.
48. Corn oil: V. 29, p. 114–115, 1920.
49. Patent laws in regard to the protection of chemical industry: V. 30, p. 39–44, 1922.
50. Standards of purity for medicinal agents: V. 30, p. 232–233, 1922.
51. Nature's use of disinfectants and antiseptics: V. 30, p. 388–392, 1922.
52. See: Amos, W. S. 1.
53. See: Bailey, E. H. S. 32.
54. See: Patty, F. A. 1.
55. Pool, B. E. 1.

Schaefer, Helen I.

1. See: Agrelius, Frank U. G. 9.
2. See: Agrelius, Frank U. G. 11.

Schaffner, D. C.

1. Gastroliths in the Lower Dakota of northern Kansas: V. 41, p. 225, 1938.
2. Metamorphism in south Woodson County: V. 41, p. 223–224, fig. 1, 1938.
3. Elephant grave yard: a preliminary report: V. 42, p. 365–366, unnumbered map, 1939.

Schaffner, John H.

1. Development of the forest belts in the northwestern part of Clay County, Kansas: V. 20, p. 74–79, 1907.
2. Extension of the natural range of two mammals of Clay County: V. 31, p. 61–62, 1925.

Scheffer, Theo. H.

1. A preliminary list of Kansas spiders: V. 19, p. 182–193, plates 22–24, 1905.
2. Additions to the list of Kansas Arachnida: V. 20, p. 121–130, fig. 1–10, 1906.
3. Distribution, natural enemies, and breeding habits of the Kansas pocket gophers: V. 23, p. 109–114, 1909.
4. Investigating the mole: V. 23, p. 119–131, 1909.
5. The prairie dog situation in Kansas: V. 23, p. 115–118, 1909.
6. The uncommon mole runway studies: V. 25, p. 160–163, 1913.
7. Study of a small prairie dog town: V. 40, p. 391–395, plate 1, fig. 1–4, 1938.
8. Excavation of a runway of the pocket gopher (*Geomys bursarius*): V. 43, p. 473–478, plate 1, fig. 1–2, fig. 3, 1940.
9. Ecological comparison of the plains prairie-dog and the Zuni species: V. 49, no. 4, p. 401–406, fig. 1–4, 1947.
10. Ecological comparisons of three genera of moles: V. 52, no. 1, p. 30–37, fig. 1–7, 1949.
11. Taxonomic status of the Townsend ground squirrel: V. 53, no. 1, p. 21–22, fig. 1 unnumbered, 1950.

Schlager, Gunther

Controlling fluctuations of pupation site in *Drosophila*: V. 63, no. 4, p. 243–257, 1960.

Schmidt, Gene W.

(and Marsi, Kenneth L.) Chemical analysis of ground water resources of Rooks County, Kansas: V. 64, no. 1, p. 49–62, fig. 1–3, 1961.

Schmidt, J. W.

1. (and Heyne, E. G.; Johnston, C. O.; and Hansing, E. D.) Progress of agrotricum breeding in Kansas: V. 56, no. 1, p. 29–45, fig. 1–2, tables 1–2, 1953.
2. See: Jones, Elmer T. 6.

Schmidt, M. M.

Common rocks and gem stones of Kansas and how to recognize them: V. 29, p. 85–88, 1920.

Schmidt, Richard H.

1. See: Mohler, R. E. 2.
2. See: Mohler, R. E. 4.

Schneider, Marion

See: Reichard, Suzanne 1.

Schnittker, J. A.

World wheat balance and implication for United States exports: V. 62, no. 1, p. 31–34, 1959.

Schoewe, Charles G.

Note on the occurrence of some eastern Wisconsin plants: V. 49, p. 365, 1947.

Schoewe, Walter H.

1. Glacial erratics in Shawnee, Douglas and Johnson counties, Kansas: V. 31, p. 106–109, map 1, 1924.
2. Evidence of stream piracy on the Dakota hogback between Golden and Morrison, Colorado: V. 31, p. 112–114, plates 1–3, 1925.
3. Additional evidence of an ice invasion south of the Kansas River in eastern Kansas: V. 31, p. 109–111, 1927.
4. Glacial striae and grooves in Kansas: V. 34, p. 145–147, table 1, 1931.

5. An animal-polished boulder from Kansas: V. 35, p. 211–222, 1932.
6. Glacial striae in Kansas—new localities: V. 35, p. 223, 1932.
7. (and Parker, Roland Virgil) Science in newspapers: V. 35, p. 113–117, tables 1–4, 1932.
8. (and Lenahan, Thomas) Fossil "Nests" in the Brownville limestone at Admire Junction, Kansas: V. 36, p. 142–148, fig. 1–2, 1933.
9. Geology more difficult for women than for men?: V. 36, p. 149–152, tables 1–3, 1933.
10. Glacial striae in Kansas—a new locality: V. 36, p. 141, 1933.
11. Fluctuation of water table in the glaciated part of Kansas: V. 38, p. 201–204, table 1, 1935.
12. Celestite in Brown County, Kansas: V. 41, p. 228, 1938.
13. (and Bridwell, Arthur) Glacial striae in Kansas—locality 19: V. 40, p. 267–268, map 1 unnumbered, 1938.
14. The Kansas Academy of Science—past, present, and future: V. 41, p. 399–416, tables 1–10, fig. 1–5, plates 2 unnumbered, 1938.
15. (Keroher, Grace C.; and Keroher, R. P.) Preliminary study of insoluble residues of Kansas Pennsylvanian rocks: V. 40, p. 269–281, fig. 1; plate 1, fig. 1–4; plate 2, fig. 1–4, 1938.
16. Symposium on "Rock City," a proposed National Monument in Ottawa County, Kansas: introduction, history, and geology: V. 40, p. 178–192, maps 1–2, plates 1–3, fig. 1–6, 1938. See also Special Publications—Committee on Conservation and Ecology.
17. The west Atchison glacial section: V. 41, p. 227, 1938.
18. Conservation of our natural areas: V. 42, p. 59–79, tables 1–3, 1939.
19. Evidences for the relocation of west drift border in eastern Kansas: V. 42, p. 367, unnumbered map, 1939.
20. The geographical center of the United States: V. 43, p. 305, 1940.
21. Glacial striae in Kansas—Localities 20, 21, 22, and 23: V. 44, p. 318–321, table 1, fig. 1 unnumbered, 1941.
22. Kansas amber: V. 45, p. 262, 1942.
23. Note on a giant Kansas calamite and the Ottawa fossil forest: V. 47, no. 3, p. 415–416, unnumbered fig. 1, 1945.
24. The geography of Kansas, Part I: political geography: V. 51, no. 3, p. 253–288, tables 1–9, fig. 1–11, 1948.
25. Kansas and the geodetic datum of North America: V. 51, no. 1, p. 117–124, table 1, fig. 1 with A and B fig., 1948.
26. The geography of Kansas, Part II: physical geography: V. 52, no. 3, p. 261–333, tables 10–12, fig. 12–55, 1949.
27. The geography of Kansas, Part III: hydrogeography: V. 54, no. 3, p. 263–329, tables 13–15, fig. 56–70, tables appendix 1–2, 1951.
28. The geography of Kansas, Part III concluded, hydrogeography: V. 56, no. 2, p. 131–190, tables 16–31, fig. 71–84, 1953.
29. The geography of Kansas, Part IV: economic geography: mineral resources: V. 61, no. 4, p. 359–468, fig. 85–123, tables 32–71, 1958.
30. Theses—1962: V. 65, no. 2, p. 194–205, 1962.
31. Suggestion to Academy authors: V. 65, no. 2, p. 206–213, fig. 2 unnumbered, 1962.
32. The Editor's Page: V. 65, no. 2, p. 187–189, 1962.
33. The Editor's Page: V. 65, no. 3, p. 301–303, 1962.
34. The Editor's Page: V. 65, no. 4, p. 422–425, 1962.
35. See: Frye, John C. 6.
36. See: Jewett, J. M. 8.

Schoonover, Roy

(and Thompson, William H.) A post-impoundment study of the fisheries resources of Fall River Reservoir, Kansas: V. 57, no. 2, p. 172–179, tables 1–10, 1954.

Schrammel, H. E.

1. The Schrammel-Brannan revision of the army alpha intelligence examination: V. 39, p. 239–242, 1937.

2. Valuable tests for guidance service: V. 44, p. 373–375, 1941.
3. The purpose, origin, plan of procedure and values of nationwide every pupil scholarship tests: V. 45, p. 294–298, 1942.
4. College success in relation to age of entrants: V. 47, no. 3, p. 343–348, tables I–VII, 1944.

Schrenk, W. G.

1. Application of emission spectroscopy to agricultural problems: V. 53, no. 2, p. 229–234, 1950.
2. (and Silker, Ralph E.) Mineral composition of dehydrated alfalfa: V. 53, no. 3, p. 422–426, table 1, 1950.
3. (and Lentz, Carl F.; and Glendening, B. L.) Determination of calcium using the flame photometer as an excitation source for the spectrograph: V. 54, no. 3, p. 420–425, tables 1–3, fig. 1.
4. (and Hawley, J. E.) Zinc content of Kansas grown alfalfa: V. 55, no. 4, p. 489–492, fig. 1, table 1, 1952.
5. See: Caldwell, M. J. 3.
6. See: Perkins, Alfred T. 10.
7. See: Smith, F. M. 1.
8. (and Nauman, Delbert A.; and Hein, R. E.) Preliminary report on zinc uptake in alfalfa: V. 60, no. 1, p. 71–77, tables 1–3, fig. 1–2, 1957.

Schull, Charles A.

Evaporation in Kansas: V. 29, p. 118–130, plates 1–5, tables 1–2, 1920.

Schultz, P. D.

1. Observation of the reaction between gaseous ammonia and hydrogen chloride as a teaching aid: V. 44, p. 227, 1941.
2. See: Kolling, Orland W. 1.

Schumacher, A. E.

See: Parrish, D. B. 1.

Schuyler, Helen K.

The professional knowledge of secondary school counselors: its measurement and significance: V. 51, no. 3, p. 340–343, 1948.

Schwitzgebel, R. B.

(and Wilbur, D. A.) Lepidoptera, Hemiptera and Homoptera associated with ironweed, *Veronia interior* Small, in Kansas: V. 45, p. 195–202, 1942.

Schribner, F. Lamson

A contribution to the flora of Kansas—*Gramineal*: V. 9, p. 115–123, plate 1, fig. 1–4; plate 2, fig. 1–9; plate 3, fig. 1–15, 1885.

Seagondollar, L. W.

Nuclear fission and atomic bombs: V. 53, no. 2, p. 141–150, 1950.

Search, Herman

(and Rankin, Roy) The lime content of rocks of the Upper Cretaceous system of Osborne County, Kansas: V. 42, p. 233–235, 1939.

Sears, Paul B.

The role of botany in war-time: V. 46, p. 286–289, 1943.

Seaton, R. A.

Problems in artillery ammunition design: V. 30, p. 63–69, 1922.

Seeberger, Evelyn

See: Byrne, Frank 4.

Selander, Richard B.

Melanism in some Meloidae (Coleoptera) from the Pincate lava cap in northwestern Sonora, Mexico: V. 61, no. 1, p. 77–80, fig. 1, 1958.

Sellards, F. H.

Fossil plants in the Permian of Kansas: V. 17, p. 208–209, 1901.

Senter, C. H.

(and Taft, Robert) The electrodeposition of zinc in the presence of organic addition agents: V. 42, p. 237–240, 1939.

Setzer, Henry W.

(and Montell, R. L.) Nesting of the yellow-headed blackbird in Douglas County, Kansas: V. 49, no. 2, p. 208–209, 1946.

Sewall, M. C.

(and Latshaw, W. L.) A soil study in Scott County, Kansas: V. 31, p. 81–86, fig. 1, tables 1–3, 1925.

Shaffer, Robert L.

(and Rogerson, Clark T.) Notes on the fleshy fungi of Kansas: V. 55, no. 3, p. 282–286, 1952.

Shaffner, John H.

Myxomycetes of Clay County, Kansas: V. 19, p. 204, 1905.

Shannon, Frederick A.

1. (and Smith, Hobart M.) Herpetological results of the University of Illinois field expedition, 1949: V. 52, no. 4, p. 494–509, 1949.
2. (and Werler, John E.) Notes on amphibians of the Los Tuxtlas Range of Veracruz, Mexico: V. 58, no. 3, p. 360–386, plate 1, fig. 1–2; plate 2, fig. 1–2; fig. 1–6; plate 3, fig. 1–2, 1955.
3. See: Werler, John E. 2.

Shantz, H. L.

(and Albertson, F. W.; Albrecht, W. A.; Daubenmire, R.; Fitch, H. S.; Piemeisel, R. L.; and Whaley, W. G.) Aspects of needed research on North American grasslands: V. 62, no. 3, p. 175–183, 1959.

Shattuck, C. H.

A fossil forest in Jackson County: V. 19, p. 107–109, fig. 9, 1905.

Shaw, Roscoe H.

1. A chemical study of the lime and sulfur dip: V. 20, p. 53–60, tables 1–2, 1906.
2. See: Willard, J. T. 18.

Sheets, John

See: Hermanson, J. L. 4.

Shell, Francis J.

See: Choguill, Harold S. 1.

Shepherd, Byron Leroy

See: Smith, Roger C. 7.

Shepherd, Harold R.

Studies in breaking the rest period of grass plants by treatments with potassium thiocyanate and in stimulating growth with artificial light: V. 41, p. 139–149, tables 1–5, fig. 1–9, 1938.

Sherbon, M. D. Florence Brown

The academic, vocational and maternal status of three hundred and fifty married women graduates of the University of Kansas: V. 34, p. 234–238, 1931.

Sherwin, R. S.

1. Notes on the geology of the Antelope Hills: V. 18, p. 83–84, 1903.
2. Notes on the theories of origin of gypsum deposits: V. 18, p. 85–88, plate 1 unnumbered, 1903.

Sherwood, Noble P.

1. Bacteriology, medicine and the war: V. 46, p. 276–279, 1943.
2. (and Wahl, H. R.; Hamilton, Tom R.; and Jay, Alan) Studies of experimental streptococcal infections a host response to the intradermal injection of streptococcal filtrates and whole cultures: V. 57, no. 3, p. 285–290, table 1, 1954.

Shields, Ivan J.

1. A survey of phloem necrosis in Lawrence, Kansas: V. 53, no. 4, p. 473–476, 1950.
2. Notes on Kansas fungi, 1950–1951: V. 56, no. 1, p. 58–60, 1953.
3. Observations on phloem necrosis: V. 56, no. 1, p. 61–62, fig. 1, table 1, 1953.

Shimer, E. Roberta

See: Parrish, D. B. 2.

Shirk, J. A.

1. Maxwell's method of comparing an electrostatic capacity with self inductance: V. 23, p. 56–59, fig. 1–2, 1909.
2. A further discussion of municipal ownership of water and light plants: V. 25, p. 170–173, 1913.
3. Municipal illumination: V. 27, p. 76–80, 1915.
4. American highways: V. 29, p. 201–209, 1920. See also Special Publications.

Shirling, A. E.

The age of needle leaves: V. 49, no. 2, p. 161–166, 7 unnumbered graphs, 1946.

Short, R. H.

Observations of November meteors: V. 9, p. 103–104, 1885.

Showalter, Wendell

1. (and Stubbs, Ansel H.) The Stubbs collection of fleshy fungi at the University of Kansas: V. 54, no. 2, p. 221–225, 1951.
2. *Placosphaera opaca*—its morphology and life history: V. 55, no. 1, p. 113–119, fig. 1–10, 1952.
3. Morphological studies of dermatophytes in chick embryo membranes: V. 57, no. 2, p. 149–156, fig. 1–20, 1954.
4. Preliminary studies of the physiology of growth and pigmentation of *Helminthosporium gramineum*: V. 61, no. 3, p. 273–279, fig. 1–3, 1958.

Shrenk, W. G.

See: Johnson, Wm. J. 1.

Shull, Charles A.

Measurements of the internal forces of seeds: V. 27, p. 65–70, 1915.

Shults, M. G.

(and McCormick, C. T.) Variation of moments with distribution of masses and areas: V. 44, p. 337–338, 1941.

Shultz, Irvin T.

1. A study of individual variations on similar learning tests: V. 45, p. 299–301, tables I–IV, 1942.
2. (and Barnabas, Bentley) Testing for leadership in industry: V. 48, no. 2, p. 160–164, table I, 1945.
3. Comparison of the scores of design engineering personnel with factory workers on the MacQuarrie mechanical performance ability tests: V. 49, no. 3, p. 354–356, table 1, 1946.

Sibley, F. H.

The development of mechanical power in the last decade: V. 26, p. 47–52, 1914.

Silker, Ralph E.

1. See: Gugliemelli, L. A. 1.
2. See: Mitchell, H. L. 1.
3. See: Mitchell, H. L. 2.
4. See: Schrenk, W. G. 2.

Sill, W. H., Jr.

1. Some characteristics of the wheat streak-mosaic virus and disease: V. 56, no. 4, p. 418–424, tables 1–3, 1953.
2. (and Cronnin, R. V.) Summary of the known host range of the wheat streak mosaic virus: V. 56, no. 4, p. 411–417, tables 1–6, 1953.
3. (and Haskett, W. C.; Fellows, H.; Hansing, E. D.; and Johnston, C. O.) Kansas phytopathological notes, 1953: V. 57, no. 4, p. 453–457, 1954.
4. The effect of temperature upon the local lesion response of cowpea inoculated with cucumber virus 1: V. 58, no. 3, p. 328–329, 1955.
5. (and Agusiobo, Patrick C.) Wheat streak mosaic—a gramineous virus disease: V. 58, no. 4, p. 525, 1955.
6. (and Johnston, C. O.; Hansing, E. D.; and King, Claude L.) Kansas phytopathological notes: 1957: V. 62, no. 1, p. 35–41, 1959.
7. (and Hansing, E. D.; Kramer, C. L.; and King, C. L.) Kansas phytopathological notes: 1960: V. 64, no. 4, p. 287–292, fig. 1, 1960.
8. See: Hansing, E. D. 6.
9. See: Hansing, E. D. 7.
10. See: Hansing, E. D. 15.
11. See: Johnston, C. O. 25.

Simon, John F., Jr.

See: Leone, Charles A. 7.

Siple, Howard L.

1. An experimental study of attitude toward the public school system: V. 42, p. 401–406, 1939.
2. A study of student opinion regarding instruction in beginning psychology: V. 44, p. 376–380, tables 1–3, 1941.

Sisler, Harry H.

1. A monolysis of hexavalent chromium derivatives: V. 46, p. 136–141, tables I–II, fig. 1, 1943.
2. Variable valence number: V. 49, no. 2, p. 185–194, tables 1–8, 1946.
3. See: VanderWerf, C. A. 1.

Sites, Blaine E.

An A C arc as a spectroscopic source: V. 45, p. 267–271, fig. 1, 2A, 2B, 3A, 3B, 4, 5, 1942.

Skillman, Herbert C.

See: Wenzel, Duane, 6.

Slabaugh, W. H.

The stoichometry of complex silicates: V. 55, no. 4, p. 484–488, table 1, 1950.

Slosson, Mrs. A. L.

1. Personal observations upon the flora of Kansas: V. 11, p. 19–22, 1889.
2. A partial list of plants found in Cherokee County, Texas: V. 12, p. 62–63, 1890.

Slosson, E. E.

1. The relative sweetness of different alcohols: V. 12, p. 104–105, 1890.
2. See: Bailey, E. H. S. 16.
3. See: Kellogg, V. L. 1.

Smith, Alva J.

1. *Fusilina cylindrica* shell structure: V. 16, p. 64–65, fig. 1–4, 1899.
2. The Americus Limestone: V. 17, p. 189–193, plates 15–17, 1901.
3. Geology of Lyon County, Kansas: V. 18, p. 99–103, 1903.
4. Reading Blue Limestone: V. 19, p. 150–154, plates 16–18, 1905.
5. A deep well at Emporia: V. 20, p. 234–238, log 1 unnumbered, fig. 1 unnumbered, 1906.
6. An improved water supply for the city of Emporia: V. 23, p. 150–153, 1909.
7. Progress in sanitary engineering practice: V. 26, p. 22–23, tables 4, 1914.
8. Deep wells at Elmdale: V. 27, p. 50–52, 1915.

Smith, Arlene

See: Harman, Mary T. 11.

Smith, Charles F.

1. A burrow of pocket gopher (*Geomys bursarius*) in eastern Kansas: V. 51, no. 3, p. 313–315, fig. 1, 1948.
2. An analysis of the results of the examination of two hundred stools from chickens: V. 52, no. 4, p. 454–457, 1949.

Smith, F. M.

(and Schrenk, W. G.; and King, H. H.) Survey of the boron content of Kansas grown alfalfa: V. 50, no. 3, p. 342–348, tables I–IV, fig. 1, 1947.

Smith, Harold T. U.

1. Preliminary notes on Pleistocene gravels in southwestern Kansas: V. 40, p. 283–292, fig. 1, table 1, 1938.
2. Notes on historic changes in stream courses of western Kansas, with a plea for additional data: V. 43, p. 299–300, 1940.
3. Preliminary report on a proposed Sand Dunes State Monument: V. 43, p. 307–308, 1940.

Smith, Hobart M.

1. A report upon amphibians hitherto unknown from Kansas: V. 35, p. 93–96, 1932.
2. An addition to the amphibian fauna of Arkansas: V. 36, p. 321–322, 1933.
3. Notes on some Mexican lizards of the genus *Anolis* with the description of a new species: V. 36, p. 315–320, 1933.
4. On the relationships of the lizards, *Coleonyx brevis* and *Coleonyx variegatus*: V. 36, p. 301–314, text fig. 1 A–B, fig. 1–3, plate 1, 1933.
5. Descriptions of new lizards of the genus *Sceloporus* from Mexico and southern United States: V. 37, p. 263–286, fig. 1–13, plates VIII, IX, X, tables 1–5, 1934.
6. Notes on some lizards of the genus *Phrynosoma* from Mexico: V. 37, p. 287–298, fig. 1–7, plates XI, XII, 1934.
7. Comments on G. Jan's papers on venomous serpents and the Coronellidae: V. 46, p. 241–242, 1943.

8. (and Mittleman, M. B.) Notes on the Mansfield Museum's Mexican reptiles collected by Wilkinson: V. 46, p. 243–249, 2 unnumbered tables, 1943.
9. (and Laufe, Leonard E.) Mexican amphibians and reptiles in the Texas cooperative wild life: V. 48, no. 3, p. 325–354, 1 unnumbered table, 1945.
10. (and Nixon, C. William; and Minton, Sherman A., Jr.) Observations on constancy of color and pattern in soft-shelled turtles: V. 52, no. 1, p. 92–98, fig. 1–3, 1949.
11. (and Salter, James A.) The southern races of *Eumeces septentrionalis* (Baird): V. 52, no. 4, p. 438–448, fig. 1–2, 1949.
12. (and James, Louis F.) The taxonomic significance of cloacal bursae in turtles: V. 61, no. 1, p. 86–96, 1958.
13. Evolutionary lines in tooth attachment and replacement in reptiles: their possible significance in mammalian dentition: V. 61, no. 2, p. 216–225, fig. 1–8, 1958.
14. New and noteworthy reptiles from Oaxaca, Mexico: V. 62, no. 4, p. 265–272, 1959.
15. (and Huheey, James E.) The watersnake genus *Reginia*: V. 63, no. 3, p. 156–164, 1960.
16. See: Darling, Donald M. 1.
17. See: Hall, Henry H. 7.
18. See: Mittleman, M. B. 1.
19. See: Nakamura, Eugene L.
20. See: Sanders, Ottys 1.
21. See: Shannon, Frederick A. 1.
22. See: Williams, K. L. 2.

Smith, H. S.

1. On the magnetic declination in Kansas for October, 1880: V. 7, p. 46–48, 1881.
2. Observation on Comet "B," 1882: V. 8, p. 28–29, 1883.
3. Standard time: V. 8, p. 30–32, 1883.

Smith, Lloyd F.

1. Forest studies of Logan Grove, Geary County, Kansas: V. 43, p. 177–183, tables 1–5, plate 1, fig. 1–2, 1940.
2. A growth-ring study of an unusually old bur oak in Miami County, Kansas: V. 43, p. 173–175, table 1, fig. 1, 1940.

Smith, Philip W.

1. (and Burger, W. Leslie) Herpetological results of the University of Illinois Field Expedition, Spring 1949: V. 53, no. 2, p. 165–175, table 1, 1950.
2. F. F. Crevecoeur—a versatile Kansas naturalist, 1862–1931: V. 34, p. 138– from Illinois: V. 57, no. 2, p. 200–205, table 1, 1954.
3. *Pseudacris streckeri illinoensis* in Missouri: V. 58, no. 3, p. 411, 1955.
4. A second record of *Hemidactylium scutatum* in Missouri: V. 59, no. 4, p. 463–464, 1956.
5. (and Hensley, M. Max) Notes on a small collection of amphibians and reptiles from the vicinity of the Pinacate lava cap in northwestern Sonora, Mexico: V. 61, no. 1, p. 64–76, fig. 1–4, 1958.

Smith, Roger C.

1. The tray system for insect collections: V. 31, p. 77–81, fig. 1–2, 1926.
2. F. F. Crevecoeur—A versatile Kansas naturalist, 1862–1931: V. 34, p. 138–144, picture 1, 1931.
3. Upsetting the balance of nature, with special reference to Kansas and the Great Plains: V. 35, p. 31–33, 1932.
4. A summary of published information about Pharaoh's Ant, with observations on the species in Kansas: V. 37, p. 139–150, 1934.

5. (and Kelly, E. G.) The fourth annual summary of the more important insects of Kansas covering the year 1934: V. 38, p. 171–186, tables 1–2, 1935.
6. (and Kelly, E. G.) The fifth annual summary of the population of the more important insects in Kansas, covering the year 1935: V. 39, p. 129–149, fig. 1–3, table 1, 1937.
7. (and Shepherd, B. L.) The life history and control of the boxelder bug in Kansas: V. 40, p. 143–159, fig. 1–2, plate 1, fig. 1–8, tables 1–7, 1938.
8. A preliminary report on the insects attacking bindweed with special reference to Kansas: V. 41, p. 183–191, fig. 1–10, 1938.
9. The eighth annual insect population summary of Kansas, covering the year 1938: V. 42, p. 303–323, tables I–II, 1939.
10. (and Kelly, E. G.) The tenth annual insect population summary of Kansas, 1940: V. 44, p. 241–256, tables 1–3, 1941.
11. The eleventh annual insect population summary of Kansas, 1941: V. 45, p. 203–220, tables I–III, 1942.
12. An analysis of 100 years of grasshopper populations in Kansas (1854–1954): V. 57, no. 4, p. 397–433, plate 1, fig. 1–10, fig. 1–5, 1954.

Smith, V. T.

A technique for selecting students for training in college reading: V. 41, p. 271–272, 1938.

Smits, B. L.

See: Barham, N. N. 1.

Smyth, B. B.

1. Botanical notes from the Southwest: V. 7, p. 48–57, 1881.
2. The age of Kansas: V. 9, p. 129–136, fig. 1–4 unnumbered, 1885.
3. Librarian's report: V. 11, p. 120–127, 1889.
4. Additions to the flora of Kansas: V. 12, p. 105–119, 1890.
5. Librarian's report: V. 12, p. 178–186, 1890.
6. Periodicity in plants: V. 12, p. 75–81, 1890.
7. Additions to the flora of Kansas: V. 13, p. 96–103, 1893.
8. Librarian's report, 1890–1892: V. 13, p. 137–168, 1893.
9. Accessions to the library, 1892–1894: V. 14, p. 291–364, 1896.
10. Additions to the plants of Kansas: V. 14, p. 133–134, 1896.
11. Figuarate series: V. 14, p. 29–35, fig. 1–4, 1896.
12. Harmonic forms—their construction reduced to a science: V. 14, p. 46–83, fig. 1–76, 1896.
13. Harmonic Series—harmonies of the chemical elements: V. 14, p. 100–110, fig. 1–16 unmarked, 1896.
14. List of correspondents of Kansas Academy of Science: V. 14, p. 280–290, 1896.
15. Report of librarian: V. 14, p. 279, 1896.
16. The terminal boulder belt in Shawnee County: V. 14, p. 220–226, plate 1 unnumbered, 1896.
17. The Topeka coal hole: V. 14, p. 207–215, fig. 1, 1896.
18. Accessions to the library—1895–1896: V. 15, p. 138–195, 1898.
19. Additions to the flora of Kansas: V. 15, p. 60–73, 1898.
20. The buried moraine of the Shunganunga: V. 15, p. 95–104, plate 1, 1898.
21. The closing of Michigan glacial lakes: V. 15, p. 23–27, 1898.
22. Report of librarian: V. 15, p. 137, 1898.
23. See: Bailey, E. H. S. 20.
24. Additions to the flora of Kansas: V. 16, p. 158–167, 1899.
25. Floral horologe for Kansas: V. 16, p. 106–108, plate 9, 1899.
26. Preliminary list of medicinal and economic Kansas plants, with their reputed therapeutic properties: V. 18, p. 191–209, fig. 1–23, 1903.
27. Observations on mirages: V. 19, p. 392–400, 1905.
28. Physical properties of water and its relation to tree growth: V. 19, p. 401–424, 1905.

29. Harmonic forms: V. 21, p. 237–258, fig. 1–40, 1908.
30. Notes on the gila monster (*Heloderma suapectum*): V. 22, p. 384–385, 1909.
31. (and Smyth, Lumina C. R.) Catalogue of the flora of Kansas, part I: V. 24, p. 273–295, 1910.
32. (and Smyth, L. C. R.) Provisional catalogue of the flora of Kansas, part II, gymnosperms and monocotyls: V. 25, p. 63–128, 1913.

Smyth, Eugene G.

1. Notes on collecting Cicindelidae: V. 19, p. 425–432, plate 31, 1905.
2. Notes on collecting Cicindelidae, II: V. 21, p. 180–188, 1908.

Smyth, Lumina C. Riddle

1. Occurrence of *Podagrion mantis* in the eggs of the common mantis: V. 21, p. 178–179, 1908.
2. See: Smyth, B. B. 30.
3. See: Smyth, B. B. 31.

Snow, Frank H.

1. Catalogue of the birds of Kansas: V. 1, p. 21–29, 1872.
2. Climate of Kansas: V. 1, p. 40–50, 1872.
3. Meteorological summary for the year 1872: V. 1, p. 61–64, 1872.
4. Meteorological summary for the year 1873: V. 2, p. 86–89, 1873.
5. Birds of Kansas: V. 3, p. 133–134, 1874.
6. Meteorological summary for the year 1874: V. 3, p. 130–132, 1874.
7. Observations on the use of the antennae of *Polyphylla variolosa*, Harris: V. 3, p. 128–129, 1874.
8. Catalogue of the Lepidoptera of eastern Kansas: V. 4, p. 29–63, 1875.
9. Larva and chrysalis of the sage sphinx: V. 4, p. 28–29, 1875.
10. Meteorological summary for 1875: V. 4, p. 63–66, 1875.
11. The Rocky Mountain locust: V. 4, p. 26–28, 1875.
12. List of Coleoptera: V. 5, p. 16–21, 1877.
13. Meteorological summary for 1876: V. 5, p. 59–61, 1877.
14. Additions to the catalogue of Kansas birds: V. 6, p. 38, 1878.
15. *Amblychila cylindriformis*, Say: V. 6, p. 30–32, 1878.
16. The insects of Wallace County, Kansas: V. 6, p. 61–70, 1878.
17. List of Coleoptera: V. 6, p. 75–77, 1878.
18. List of Lepidoptera: V. 6, p. 70–75, 1878.
19. Meteorological summary for 1877: V. 6, p. 89–91, 1878.
20. On the dermal covering of a mosasauroid reptile: V. 6, p. 54–58, fig. 1–2 unnumbered, 1878.
21. Additions to the list of Kansas Lepidoptera: V. 7, p. 98–102, 1881.
22. Douglas County additions to the list of Kansas Coleoptera in 1879 and 1880: V. 7, p. 75–76, 1881.
23. List of Coleoptera collected in Santa Fe Canon, New Mexico: V. 7, p. 67–71, 1881.
24. List of Lepidoptera: V. 7, p. 58–60, 1881.
25. Meteorological summary: V. 7, p. 85–93, 1881.
26. Preliminary list of the Hymenoptera of Kansas: V. 7, p. 93–98, 1881.
27. Additions to the list of Kansas Coleoptera in 1881 and 1882: V. 8, p. 58, 1883.
28. Lists of Lepidoptera and Coleoptera: V. 8, p. 35–45, 1883.
29. Meteorological summary for the year 1881: V. 8, p. 23–25, 1883.
30. Meteorological summary for the year 1882: V. 8, p. 81–84, 1883.
31. Meteorological summary for the year 1883: V. 9, p. 43–45, 1885.
32. Preparatory stages of *Hyperchiria zephyria*, Grote: V. 9, p. 61–62, 1885.
33. Lists of Lepidoptera and Coleoptera collected in New Mexico by the Kansas University Scientific Expeditions of 1883 and 1884: V. 9, p. 65–69, 1885.
34. Is the rainfall of Kansas increasing?: V. 9, p. 101–103, 1885.
35. Meteorological summary for the year 1884: V. 9, p. 124–126, 1885.
36. Meteorological summary for the year 1885: V. 10, p. 31–33, 1887.

37. On the discovery of a fossil bird-track in the Dakota Sandstone: V. 10, p. 3–6, fig. 1 unnumbered, 1887.
38. Meteorological summary for the year 1886: V. 10, p. 142–144, 1887.
39. On the discovery and significance of stipules in certain dicotyledonous leaves of the Dakota rocks: V. 11, p. 33–35, fig. 1–8, 1889.
40. The Logan County nickel mines: V. 11, p. 39–42, 1889.
41. Three new Kansas birds: V. 11, p. 62–63, 1889.
42. A comparison of the records of the two anemonmeters at the University of Kansas: V. 11, p. 107–109, 1889.
43. Meteorological summary for the years 1887 and 1888: V. 11, p. 115–120, 1889.
44. The mode of respiration of the common salamander: V. 12, p. 31–32, 1890.
45. Experiments for the artificial dissemination of a contagious disease among chinch-bugs: V. 12, p. 34–37, 1890.
46. Meteorological summary for the year 1889: V. 12, p. 49–51, 1890.
47. The curve of mean daily temperatures at Lawrence, Kansas, for twenty-one years, 1868–1888: V. 12, p. 52–53, fig. 1 unnumbered, 1890.
48. Notes on some Kansas meteorites: V. 12, p. 105, 1890.
49. Experiments in 1890 for the artificial dissemination of contagious diseases among chinch-bugs: V. 12, p. 119–122, 1890.
50. Notes for 1903 on the birds of Kansas: V. 19, p. 261–262, 1905.
51. Notes for 1904 on the birds of Kansas: V. 19, p. 263, 1905.
52. Some results of the University of Kansas Entomological Expeditions to Galveston and Brownsville, Texas, in 1904 and 1905: V. 20, Part I, p. 136–154, 1906.
53. Some results of the U. of K. Entomological Expedition to Arizona in 1904 and 1905: V. 20, Part I, p. 155–181, 1906.
54. List of species of Hymenoptera collected in Arizona by the University of Kansas Entomological expeditions of 1902, 1903, 1904, 1905, and 1906: V. 20, Part II, p. 127–139, 1907.
55. Results of the Entomological Collecting Expedition of the University of Kansas to Pima County, Arizona, in June and July, 1906: V. 20, Part II, p. 140–164, 1907.
56. List of Coleoptera collected in New Mexico by the Entomological expeditions of the University of Kansas: V. 20, Part II, p. 165–189, 1907.
57. Additions to the list of Kansas birds: V. 20, Part II, p. 209–210, 1907.
58. Is the gila monster a poisonous reptile?: V. 20, Part II, p. 218–221, 1907.
59. Change in the climate of Kansas: V. 20, p. 288–291, 1907.

Snyder, Charles W.

A "scrambling" technique for the study of auditory perception: V. 57, no. 4, p. 517–519, 1954.

Snyder, Dorrice

The correlation between writing grade and maturation: V. 39, p. 243–245, 1936.

Snyder, F. W.

1. See: Pronko, N. H. 1.
2. See: Pronko, N. H. 3.

Sokal, Robert R.

A comparison of five tests for completeness of factor extraction: V. 62, no. 2, p. 141–152, tables 1–7, 1959.

Sooter, Clarence A.

See: Lungstrom, Leon G. 3.

Spangler, Paul J.

See: Hungerford, H. B. 2.

Spann, Liza

Studies on the reproductive systems of *Gryllus assimilis* Fabr: V. 37, p. 299–341, fig. 1–81, plates XIII–XXI, Text fig. 1–2, table 1, 1934.

Speckman, Wesley N.

Dissemination and germination of seeds: V. 19, p. 198–203, plate 25, 1905.

Sperry, K. L.

See: McGregor, R. L. 5.

Sperry, Theodore M.

1. An ecological paradox (Presidential address, 1960): V. 63, no. 4, p. 215–227, 1 unnumbered fig., photo of author, 1960.
2. Current botanical research and Kansas economy: V. 65, no. 1, p. 25–29, 1962.

Sphar, Joe

Occurrence of magnetite in the Arkansas River bed between Ford and Arkansas City: V. 65, no. 3, p. 257–262, fig. 1–6, 1962.

Sprague, James M.

1. The distribution of the genus *Peromyscus* in Kansas: V. 42, p. 487–494, fig. 1–2, table 1, 1939.
2. A preliminary study of the baculum of *Peromyscus leucopus* and *P. maniculatus* in Kansas: V. 42, p. 495–497, fig. 1–3, table 1, 1939.
3. See: Tihen, Joe A. 2.

Stains, Howard J.

1. A westward extension of the known geographic range of the glass lizard *Ophisaurus attenuatus attenuatus* Baird, in south-central Kansas: V. 57, p. 482, 1954.
2. (and Packard, Robert L.) Occurrence of the mink, west of the hundredth meridian in Kansas: V. 58, p. 222–224, fig. 1, 1955.
3. See: Menges, Robert W. 1.
4. See: Rainey, Dennis G. 1.
5. (and Ozment, James) A record of the brown skink (*Scincella laterale*) and prairie skink (*Eumeces septentrionalis*) from Barber County, Kansas: V. 65, no. 2, p. 143, 1962.

Stebbins, Florence M.

See: Nabours, Robert K. 1.

Stene, Edwin O.

1. The development of Kansas wildlife conservation policies: V. 47, no. 3, p. 289–323, 3 pictures, 1945.
2. How lakes came to Kansas: V. 49, no. 2, p. 117–139, tables I–IV, fig. 1–10, 1946.

Steps, W. E.

Artificial rain making: V. 59, no. 1, p. 94–104, 1956.

Sternberg, Charles H.

1. Experiences with early man in America: V. 18, p. 89–93, 1903.
2. The Permian life of Texas: V. 18, p. 94–98, plate 1 unnumbered, 1903.
3. Prostegagigas and other Cretaceous reptiles and fishes from the Kansas chalk: V. 19, p. 123–128, plate 13, 1905.
4. The Loup Fork Miocene of western Kansas: V. 20, p. 71–74, 1906.
5. Some animals discovered in the fossil beds of Kansas: V. 20, p. 122–124, 1907.
6. My expedition to the Kansas chalk for 1907: V. 21, p. 111–114, photograph 1 unnumbered, 1908.

7. An armored dinosaur from the Kansas chalk: V. 22, p. 257–262, pictures 1–3 unnumbered, 1909.
8. Expedition to the Laramie Beds of Converse County, Wyoming: V. 22, p. 113–116, 1909.
9. In the Niobrara and Laramie Cretaceous: V. 23, p. 70–74, 1909.
10. Still in the Laramie County, Converse County, Wyoming: V. 24, p. 219–223, 1910.
11. Expedition to the Miocene of Wyoming and the chalk beds of Kansas: V. 25, p. 45–49, 1913.
12. Five years' explorations in the fossil beds of Alberta: V. 28, p. 205–211, 1918.
13. Sternberg's Expedition to the Red Deer River, Alberta, 1917: V. 29, p. 88–91, 1920.
14. Explorations of the Permian of Texas and the chalk of Kansas, 1918: V. 30, p. 119–120, 1922.
15. Field work in Kansas and Texas: V. 30, p. 339–341, 1922.

Sternberg, George F.

1. See: Martin, Edwin P. 2.
2. See: Robertson, George M. 7.
3. (and Walker, Myrl V.) Report on a plesiosaur skeleton from western Kansas: V. 60, no. 1, p. 86–87, 1957.
4. (and Walker, Myrl V.) Observation of articulated limb bones of a recently discovered pteranodon in the Niobrara Cretaceous of Kansas: V. 61, no. 1, p. 81–85, fig. 1–4, 1958.

Stevens, Earl D.

(and Tiemeier, O. W.) Daily movement of channel catfish *Ictalurus punctatus* (Rafinesque) in a farm pond: V. 64, no. 3, p. 218–224, fig. 1–2, 1961.

Stevens, Robert E.

Minerals at home: V. 64, no. 1, p. 72–75, fig. 1, 1961.

Stevens, W. C.

1. The union of *Cuscuta glomerata* with its host: V. 12, p. 163–164, 1890.
2. Memorial Address—Professor Snow as a teacher: V. 22, p. 34–36, 1909.
3. *Cooperia Kansensis*, new species: V. 40, p. 95–100, fig. 1–4, 1938.
4. *Croton monanthogynus* and *Lespedeza striata* as bank covers: V. 42, p. 173–177, figures 1–8, plates I–III, 1939.
5. The disappearance of a society of *Camassia esculenta* following the burning over of its prairie meadow habitat: V. 42, p. 165–171, fig. 1–5, plates I–II, 1939.
6. (and Dill, Florence E.) *Quercus macrocarpa* in Kansas: V. 43, p. 185–197, plates 1–4, fig. 1–20, 1940.
7. (and Dill, Florence E.) Stages in the development of *Androstephium coeruleum*: V. 44, p. 212–220, plates 1–2, fig. 1–13, 1941.
8. Variation in *Camassia scilliodes*: V. 44, p. 208–211, fig. 1–3, 1941.
9. (and Dill, Florence E.) *Aplectrum spicatum* in a Kansas woodland: V. 45, p. 138–151, plate I, fig. 1–3; plate II A–G (numbered); plate III; plate IV, fig. 4–16, 1942.

Stevenson, A. E.

See: Sayre, L. E. 40.

Stickler, F. C.

1. Row width and seedling rate as factors influencing winter wheat yields and components of yield: V. 64, no. 1, p. 1–6, 1961.
2. (and Pauli, A. W.) A preliminary study of certain agronomic characteristics of semi-dwarf winter wheats: V. 64, no. 2, p. 81–90, 1961.
3. See: Evans, W. F.
4. See: Mittra, M. K.

Stieferman, Sister M. Aquinas
The seed plants of Sedgwick County, Kansas: V. 42, p. 179–195, map unnumbered, 1939.

Stigers, C. C.
See: Gier, L. J. 11.

Stiles, Elsa Horn
(and Melchers, Leo E.) The drought of 1934 and its effect on trees in Kansas: V. 38, p. 107–128, fig. 1, tables 1–3, 1935.

Stockinger, Niles F.
(and Hays, Horrace A.) Plankton, benthos and fish in three strip-mine lakes with varying pH values: V. 63, no. 1, p. 1–11, fig. 1–3, 1960.

Stoland, O. O.
(and Latimer, Homer B.) A persistent left superior vena cava in the dog: V. 50, no. 1, p. 84–86, fig. 1 (Panel A–B), 1947.

Stoltenberg, Howard A.
See: Metzler, Dwight E. 1.

Storer, Richard S.
See: Herrick, E. H. 7.

Stratton, George W.
1. See: Taft, Robert W. 18.
2. See: Taft, Robert W. 27.

Strickland, Frank P., Jr.
Fossils from the western front: V. 30, p. 343–345, 1922.

Strickland, V. L.
See: Peterson, J. C. 7.

Strickler, Paul M.
Mass defeats and nuclear structure: V. 38, p. 233–234, fig. 1–4, 1935.

Stromquist, W. G.
See: Bailey, E. H. S. 28.

Stuart, H. C.
The effect of college entrance delay on college grades: V. 45, p. 302–303, table I, 1942.

Stubbs, Ansel H.
See: Showalter, Wendell V. 1.

Sullivan, Eugene
See: Jones, Lanny D.

Sullivan, Harold E.
See: Choguill, Harold S. 3.

Summerland, S. A.
The biology and synonomy of the parasites of the strawberry leafroller, *Ancylis comptana* Froel (Lepidoptera, Tortricidae) found in Kansas: V. 40, p. 161–178, 1938.

Sundwall, John
Man and microbes: V. 28, p. 77–104, 1918.

Swanson, C. O.

1. Loss of nitrogen and organic matter in cultivated Kansas soils: V. 27, p. 87–96, tables 1–2, 1915.
2. See: Willard, J. T. 21.

Swanson, Harold

See: Crow, H. E. 1.

Swarup, Gopal

(and Hansing, Earl D.; and Rogerson, Clarke T.) Fungi associated with sorghum seed in Kansas: V. 65, no. 2, p. 120–137, 1962.

Swim, Leroy E.

(and Leonard, Guy Williams, Jr.) Spectrophotometric determination of zirconium: V. 58, no. 1, p. 121–124, table 1, fig. 1 unnumbered, 1955.

Swineford, Ada

1. (and Runnels, Russell T.) Identification of polyhalite (a potash mineral) in Kansas Permian salt: V. 56, no. 3, p. 364–370, tables 1–3, 1953.
2. (and Frye, John C.) Notes on Waconda or Great Spirit Spring, Mitchell County, Kansas: V. 58, no. 2, p. 265–270, plate 1, fig. 1, table 1, 1955.
3. See: Frye, John C. 3.

Swingle, W. T.

1. A list of the Kansas species of Peronosporaceae: V. 11, p. 63–87, 1889.
2. First additions to the list of Kansas Peronosporaceae: V. 12, p. 129–134, 1890.
3. See: Kellerman, W. A. 7.

Synolds, D. L.

(and Pronko, N. H.) I—an exploratory study of color discrimination of children: V. 52, no. 1, p. 105–109, tables 1–4, fig. 1, 1949.

Taft, Dorothy

The effects of habitat on stomatal frequency: V. 53, no. 4, p. 477–487, tables I–III, 1950.

Taft, Robert

1. The behavior of certain lyophilic colloids in liquid ammonia: V. 32, p. 38–41, 1929.
2. (and Messmore, Harold E.) The influence of gelatin on the form of electro-deposited copper: V. 32, p. 42–48, plates 1–3, 1929.
3. (and Malm, Lloyd) Solvents for gum arabic: V. 32, p. 49–50, 1929.
4. (and Hill, John W.) The effect of light upon the formation of banded precipitates of mercuric iodide: V. 33, p. 57–63, tables 1–3, 1930.
5. (and Malm, Lloyd E.) Solvents for gum arabic II: V. 34, p. 116–117, 1931.
6. (and Malm, Lloyd E.) Furfural as a lyophilic dispersion medium: V. 36, p. 125–130, table 1, 1933.
7. Presidential address: old photographs—a review of American photography in the period 1839–1880: V. 36, p. 36–40, plates 1–2, 1933.
8. (and Fincke, John K.) Addition agents in the electro-deposition of lead: V. 45, p. 173–188, fig. 1, no. 1–6, 1942.
9. (and Hiebert, Erwin N.) The electrodeposition of silver from solutions of silver nitrate in the presence of wetting agents: V. 46, p. 142–160, fig. 1, 1943.
10. The Kansas Academy of Science: V. 46, p. 263–266, 1943.
11. The Editor's Page: V. 47, no. 1, p. 7–10, 1944.
12. The Editor's Page: V. 47, no. 2, p. 177–181, 1944.
13. The Editor's Page: V. 47, no. 3, p. 325–329, 1945.
14. The Editor's Page: V. 48, no. 1, p. 41–46, 1945.
15. The Editor's Page: V. 48, no. 2, p. 134–138, 1945.

16. The Editor's Page: V. 48, no. 3, p. 265–268, 1945.
17. Charles Darwin's last letter?: V. 48, no. 3, p. 317–318, 1945.
18. (and Stratton, G. W.) The photochemical gaseous phase chlorination of isobutane: V. 48, no. 3, p. 319–324, tables 1–3, fig. 1–2, 1945.
19. The Editor's Page: V. 48, no. 4, p. 373–376, 1945.
20. The Editor's Page: V. 49, no. 1, p. 36–39, 1946.
21. The Editor's Page: V. 49, no. 2, p. 138–140, 1946.
22. Kansas and the nation's salt: V. 49, no. 3, p. 223–272, tables 1–12, fig. 1–16, 1946.
23. The Editor's Page: V. 49, no. 3, p. 273–274, 1946.
24. The Editor's Page: V. 49, no. 4, p. 379–381, 1947.
25. The Editor's Page: V. 50, no. 1, p. 19–20, 1947.
26. The Editor's Page: V. 50, no. 2, p. 120–123, 1947.
27. (and Stratton, G. W.) Some reactions of the polychlorides obtained by the chlorination of isobutane: V. 50, no. 2, p. 225–238, 1 unnumbered fig., 1947.
28. The Editor's Page: V. 50, no. 3 and 4, p. 262–267, 1947.
29. The Editor's Page: V. 51, no. 1, p. 20–21, 1948.
30. The Editor's Page: V. 51, no. 2, p. 162–163, 1948.
31. The Editor's Page: V. 51, no. 3, p. 289–291, 1948.
32. The Editor's Page: V. 51, no. 4, p. 425–426, 1948.
33. The Editor's Page: V. 52, no. 1, p. 13–14, 1949.
34. The Editor's Page: V. 52, no. 2, p. 132–134, 1949.
35. The Editor's Page: V. 52, no. 3, p. 334–335, 1949.
36. The Editor's Page: V. 52, no. 4, p. 416–418, 1949.
37. The Editor's Page: V. 53, no. 1, p. 13–15, 1950.
38. The Editor's Page: V. 53, no. 2, p. 119–121, 1950.
39. The Editor's Page: V. 53, no. 3, p. 302–304, 1950.
40. (and Anderson, W. Max) Solubilities at 30°C in the ternary system sodium chloride-thiourea-water: V. 53, no. 3, p. 411–421, fig. 1–6, tables 1–2, 1950.
41. The Editor's Page: V. 53, no. 4, p. 441–444, 1950.
42. (and Anderson, W. Max) The density, viscosity, and electrical conductance of aqueous solutions of sodium chloride and thiourea at 30°C: V. 53, no. 4, p. 578–584, tables I–X, 1950.
43. (and Patton, Helen M.) Conductance and related properties of aqueous solutions of sodium diethylbarbiturate: V. 53, no. 4, p. 585–595, tables I–VI, fig. 1–3, 1950.
44. The Editor's Page: V. 54, no. 1, p. 12–14, 1951.
45. (and Hyde, Ernest B., Jr.) Conductance and related properties of aqueous solutions: V. 54, no. 1, p. 99–111, tables 1–2, fig. I–IV, 1951.
46. The Editor's Page: V. 54, no. 2, p. 130–132, 1951.
47. (and Welch, Frank H.) Physical properties of aqueous solutions of sodium oxalate, sodium malonate, and sodium succinate, I: V. 54, no. 2, p. 233–246, tables 1–14, fig. 1–4, 1951.
48. The Editor's Page: V. 54, no. 3, p. 330–332, 1951.
49. (and Liese, Dale H.) Studies on the Iodine Coulometer, I: V. 54, no. 3, p. 426–445, fig. 1–3, tables 1–3, 1951.
50. The Editor's Page: V. 54, no. 4, p. 495–497, 1951.
51. (and Liese, Dale H.) Studies on the Iodine Coulometer, II: V. 54, no. 4, p. 565–579, fig. 4, tables 4–7, 1951.
52. The Editor's Page: V. 55, no. 1, p. 38–41, 1952.
53. (and Liese, Dale H.) Studies on the Iodine Coulometer, III: V. 55, no. 1, p. 138–145, tables 8–9, 1952.
54. The Editor's Page: V. 55, no. 2, p. 159–161, 1952.
55. (and Welch, Frank H.) Physical properties of aqueous solutions of sodium oxalate, sodium malonate and sodium succinate, II: V. 55, no. 2, p. 223–231, tables 15–25, fig. 1–6, 1952.
56. The Editor's Page: V. 55, no. 3, p. 253–255, 1952.
57. The Editor's Page: V. 55, no. 4, p. 381–385, 1952.
58. The Editor's Page: V. 56, no. 1, p. 16–18, 1953.

59. The Editor's Page: V. 56, no. 2, p. 191–193, 1953.
60. The Editor's Page: V. 56, no. 3, p. 293–295, 1953.
61. The Editor's Page: V. 56, no. 4, p. 395–399, 1953.
62. The Editor's Page: V. 57, no. 1, p. 11–13, 1954.
63. (and Krishnan, V. R.) Study of phaseequilibria in ternary systems by the measurement of conductance. The system—Potassium Fluoride, Potassium Iodine and Water: V. 57, no. 1, p. 101–106, fig. 1–2, table 1, 1954.
64. The Editor's Page: V. 57, no. 2, p. 124–127, 1954.
65. The Editor's Page: V. 57, no. 3, p. 261–264, 1954.
66. The Editor's Page: V. 57, no. 4, p. 434–438, 1954.
67. The Editor's Page: V. 58, no. 1, p. 9–13, 1955.
68. The Editor's Page: V. 58, no. 2, p. 151–155, 1955.
69. The Editor's Page: V. 58, no. 3, p. 310–312, 1955.
70. The first hundred years of science in Kansas: V. 58, no. 4, p. 452–476, 1955.
71. See: Hess, Robert H.
72. See: Renich, Paul W.
73. See: Senter, C. H. 1.

Tague, E. L.

See: Bailey, E. H. S. 30.

Tanner, Wilmer W.

1. See: Fitch, Henry S. 1.
2. (and Loomis, Richard B.) A taxonomic and distributional study of the western subspecies of the milk snake, *Lampropeltis doliata*: V. 60, no. 1, p. 12–42, plates 1–4, table 1, 1957.

Tasch, Paul

1. Preliminary report on some conchostracan-bearing beds of Kansas (Jester Creek section): V. 61, no. 2, p. 230–236, plates 1–2, tables 1–2, 1958.
2. Paleoecological observation of the Wellington Salt (Hutchinson member): V. 63, no. 1, p. 24–30, fig. 1–6, 1960.
3. Valve injury and repair in living and fossil conchostracans: V. 64, no. 2, p. 144–149, fig. 1–5, 1961.
4. See: Reiser, Ralph.

Taylor, Dale L.

1. (and Elder, J. B.) Preliminary survey of deer in Kansas: V. 62, no. 1, p. 67–79, tables 1–7, 1959.
2. Notes on a recent collection of a black-footed ferret: V. 64, no. 1, p. 41, 1961.

Taylor, Edward H.

1. Notes on a small herpetological collection from western Australia: V. 38, p. 341–344, 1935.
2. Proposed changes in the nomenclature of the scincoid lizard genus *Eumeces*: V. 38, p. 345–347, 1935.
3. New species of amphibia from Mexico: V. 39, p. 349–364, plate 1, fig. 1–7, tables 1–4 unnumbered; plate 2, fig. 1–6, 1937.
4. Notes and comments on certain American and Mexican snakes of the genus *Tantilla*, with descriptions of new species: V. 39, p. 335–348, fig. 1–6, 1937.

Thomas, L. C.

Judging females for fertility: V. 35, p. 100–101, fig. 1, 1932.

Thomas, Olive E.

(and Bell, Rondal E.) Isolation study of soil cytophagas: V. 58, no. 4, p. 528–530, 1955.

Thomas, R. W.

Industry looks to science: V. 65, no. 1, p. 18–24, 1962.

Thompson, A. H.

1. The influence of food-selection upon evolution of animal life: V. 5, p. 65–70, 1877.
2. Notes on the antiquity of man: V. 6, p. 12–17, 1878.
3. The origin and history of the Academy: V. 9, p. 4–16, 1885.
4. The relation of a state geological survey to the work of the national survey: V. 10, p. 9–13, 1887.
5. Animal ethics: V. 11, p. 52–56, 1889.
6. Facial expression and its psychology: V. 12, p. 67–74, 1890.
7. The descent of facial expression: V. 13, p. 122–131, 1893.
8. The origin and evolution of the human face: V. 13, p. 6–16, 1893.
9. Report of the board of curators: V. 14, p. 278, 1896.
10. In memoriam—Robert Hay: V. 15, p. 131–134, 1898.
11. The culture emergence of man: V. 19, p. 331–344, 1905.
12. Mutations and evolution of man: V. 20, p. 260–264, 1906.
13. Anthropology as a science: V. 21, p. 199–206, 1908.
14. Fifty years of evolution: V. 23, p. 154–168, 1909.
15. See: Hay, Robert 7.

Thompson, Mary E.

Notes on the salivary glands of the albino rat: V. 36, p. 323–327, fig. 1–3, plate 1, 1933.

Thompson, William H.

See: Schoonover, Roy 1.

Thorson, John

See: Hermanson, J. L. 1.

Tidd, George W.

America's opportunity in science: V. 27, p. 119–122, 1915.

Tiemeier, Otto W.

1. Summer birds of Rawlins County, Kansas: V. 40, p. 397–399, 1938.
2. Studies on Kanopolis Reservoir in 1950: V. 54, no. 2, p. 175–189, tables 1–4, fig. 1–3, 1951.
3. The embryogeny of the os opticus in the English sparrow, *Passer domesticus*: V. 56, no. 4, p. 440–448, fig. 1–13, 1953.
4. Winter foods of Kansas coyotes: V. 58, no. 2, p. 196–207, fig. 1–6, tables 1–4, 1955.
5. (and Moorman, Robert B.) Limnological observations on some Flint Hills farm ponds: V. 60, no. 2, p. 167–173, 1957.
6. Notes on stunting and recovery of the channel catfish: V. 60, no. 3, p. 294–296, table 1, 1957.
7. (and Elder, James B.) Limnology of Flint Hills farm ponds for 1956 and preliminary report on growth studies of fishes: V. 60, no. 4, p. 379–392, fig. 1–4, tables 1–8, 1957.
8. Increasing size of fingerling channel catfish by supplemental feeding: V. 65, no. 2, p. 144–153, fig. 1, tables I–VI, 1962.
9. Survival of fish in deep water of farm ponds during the summer: V. 65, no. 4, p. 463–466, table I, 1962.
10. See: Bronson, F. H. 2.
11. See: Lyons, E. T.
12. See: Stevens, Earl D.

Tihen, Joe A.

1. Additional distributional records of amphibians and reptiles in Kansas counties: V. 40, p. 401–409, 1938.

2. (and Sprague, James M.) Amphibians, reptiles, and mammals of the Meade County State Park: V. 42, p. 499–512, fig. 1–5, plates I–III, 1939.
3. A new *Gerrhonotus* from San Luis Potosi: V. 51, no. 3, p. 302–305, 1948.
4. Two races of *Elgaria kingii* Gray: V. 51, no. 3, p. 299–301, 1948.

Todd, J. E.

1. Drainage of the Kansas ice-sheet: V. 22, p. 107–112, 1909.
2. Is the Dakotah formation Upper or Lower Cretaceous: V. 23, p. 65–69, 1909.
3. History of Wakarusa Creek: V. 24, p. 211–218, 1910.
4. Eolian loess: V. 28, p. 200–203, 1918.
5. History of Kaw Lake: V. 28, p. 187–199, maps 1–4, 1918.
6. Kansas during the Ice Age: V. 28, p. 33–48, map 1, 1918.
7. Aqueous loess: V. 29, p. 115–116, 1920.
8. Lascustrine beds near Atchison: V. 29, p. 116–117, 1920.
9. Color in nature: V. 30, p. 370–376, 1922.
10. How to determine altitudes satisfactorily with an aneroid barometer: V. 30, p. 240–245, 1922.
11. More evidence that Platte River, Nebraska, formerly connected with Grand River, Missouri: V. 30, p. 179–182, 1922.

Tomanek, Gerald W.

1. Pasture types of western Kansas in relation to the intensity of utilization in past years: V. 51, no. 2, p. 171–196, tables I–V, fig. 1–13, 1948.
2. F. W. Albertson, 1892–1961: V. 64, no. 3, p. 266–267, 1961.
3. See: Hullett, Gary K.
4. See: Martin, Edwin P. 3.

Tombaugh, Robert M.

(and Choguill, Harold S.) Some physical properties of the ternary system ethylene glycol-diethylene glycol-water: V. 54, no. 3, p. 411–419, tables 1–12, fig. 1–3, 1951.

Tong, W. S.

See: Bailey, E. H. S. 37.

Toomey, Rex

See: Olsen, Allen L. 2.

Torrence, Paul

Some uses of Stephenson's Q-technique in the quantification of the individual: V. 55, no. 1, p. 92–97, 1952.

Towner, H. C.

Evidence of ancient forest in central Kansas: V. 5, p. 71–72, 1877.

Townsend, C. H. Tyler

1. On the horse-flies of New Mexico and Arizona: V. 13, p. 133–135, 1893.
2. On a peculiar *Acalyptrate muscid* near Turkey Tanks, Ariz.: V. 13, p. 135–136, 1893.

Travis, Gerald

(and Hall, H. H.) The fleshy fungi of Crawford County, Kansas: V. 42, p. 197–201, 1939.

Treitel, Otto

1. The elasticity, breaking stress, and breaking strain of the horizontal rhizomes of species of *Equisetum*: V. 46, p. 122–132, plate I, fig. 1–5; plate II, fig. 6–10; plate III, fig. 11–15, 1943.
2. Elasticity of plant tissues: V. 47, no. 2, p. 219–239, plate I, fig. 1–6; plate II, fig. 7–12, 1944.

3. Aging of plant tissue and stress strain curves, modulus of elasticity and specific gravity of plant tissues: V. 48, no. 2, p. 186–197, plate I, fig. 1–2, 1945.
4. Elasticity, plasticity, water content, and hardness of plant tissues of different ages: V. 52, no. 2, p. 219–231, tables I–II, fig. 1, 1949.

Trent, J. A.

1. *Eryngium yuccifolium*—ecological distribution and some morphological irregularities: V. 41, p. 155–163, fig. 1–15, 1938.
2. The status of *Cylindrosporium chrysanthemi* E. and D., as the causative agent of chrysanthemum leaf blight: V. 42, p. 203–205, fig. 1–5, plate unnumbered, 1939.
3. Flowering behavior of *Specularia perfoliata* in relation to light intensity and light duration: V. 43, p. 199–215, graphs A–B, 1940.
4. Studies pertaining to the life history of *Specularia perfoliata* (L.) A. D. C., with special reference to cleistogomy: V. 45, p. 152–164, plate I, fig. 1–7; plate II, fig. 8–14; plate III, fig. 15–26; plate IV, fig. 27–35, 1942.
5. Solomon, Marvin D. 1.

Tuck, J. B.

Tertiary butyl alcohol as a dehydrating agent in preparing microscopic mounts of insect material: V. 42, p. 513–514, 1939.

Tucker, Elbert S.

1. Collecting insects at night: V. 20, p. 108–120, 1906.
2. Determination of some Texas Coleoptera, with records: V. 20, p. 85–89, 1906.
3. Certain conditions to be met by the insect collector, particularly the amateur: V. 20, p. 230–232, 1907.
4. Contributions toward a catalogue of insects of Kansas, resulting from personal collecting: V. 20, p. 190–201, 1907.
5. Concerning some insects collected and bred from dead and dying elm: V. 21, p. 158–162, 1908.
6. Additional results of collecting insects in Kansas and Colorado: V. 22, p. 276–304, lists 1–2 unnumbered, 1909.
7. Description of a new fly of the family Dolichopodidae, with remarks and corrections of preceding papers: V. 23, p. 105–107, 1909.
8. Supplementary additions to the list of Kansas Diptera: V. 22, p. 306–307, 1909.
9. Supplementary additions to the list of Kansas Hymenoptera: V. 22, p. 308–310, 1909.
10. Local records of arachnids personally collected in Kansas and Texas: V. 24, p. 240–241, 1910.
11. Formaldehyde gas not effective upon flies: V. 25, p. 53, 1913.
12. Further records of insects personally collected in Kansas and Colorado: V. 25, p. 54–62, 1913.
13. Notations applied to entomological accessions: V. 25, p. 142–145, 1913.
14. Determinations and records of insects collected at Plano, Texas: V. 28, p. 291–312, 1918.
15. Experience with an outbreak of grasshoppers on overflowed land in Louisiana: V. 28, p. 265–275, 1918.
16. Notes on the green bug in Texas: V. 28, p. 276–291, 1918.
17. Occurrence of black flies in Louisiana during recent years: V. 29, p. 65–75, 1920.
18. Research work with insects infesting stored rice: V. 29, p. 75–84, 1920.
19. Studies of insects associated with American mistletoe: V. 30, p. 143–170, fig. 1–2, plates I–III, 1922.

Tweeddale, W.

1. Water purification: V. 16, p. 48–52, plate 1, 1899.
2. Silica cement mortars: V. 17, p. 42–44, 1901.

Twenhofel, W. H.
The Comanchean of central Kansas: V. 28, p. 213–223, map 5, 1918.

Twiehaus, M. J.
See: Peppler, H. J. 1.

Ungar, Irwin A.
Some effects of controlled conditions on the morphology of *Helianthus annuus* L.: V. 65, no. 3, p. 307–309, 1962.

Uhrich, Jacob
The social hierarchy in albino mice: V. 41, p. 385, 1938.

Unruh, Earl
See: Kroeker, E. H. 1.

Vail, Gladys E.
1. See: Bray, Robert W. 1.
2. See: Chitwood, Ida 1.
3. See: Wellington, G. H. 1.

Valentine, D. M.
Necrology—D. M. Valentine, LL. D.: V. 21, p. 269, 1908.

VanderWerf, C. A.
1. (and Sisler, Harry H.) A correlation of some terms used in theoretical inorganic and organic chemistry: V. 47, no. 1, p. 89–94, 1944.
2. Application of the electronic theory to some simple organic reactions: V. 48, no. 1, p. 91–99, 1945.
3. Application of the electronic theory to some simple organic reactions—II: V. 49, no. 3, p. 346–353, fig. 1–5, 1946.
4. Application of the electronic theory to simple organic reactions: V. 50, no. 3, p. 356–363, 1947.
5. See: Brownlees, William E. 1.
6. See: Hall, Luther 1.

Van Gelder, Richard G.
Echo-location failure in migratory bats: V. 59, no. 2, p. 220–222, 1956.

Van Orman, C. R.
Surface water—its control and retention for use: V. 59, no. 1, p. 105–110, 1956.

Vatne, R. D.
See: Herrick, E. H. 12.

Vaughan, Terry A.
See: Findley, James S. 1.

Vaughan, Peter Paul
1. (and Dawson, Mary R.) Calcified tympanic membranes in the mosasaur *Platecarpus*: V. 59, no. 3, p. 382–384, 1956.
2. Specimen of the Cretaceous crocodile *Dakotasuchus*: V. 59, no. 3, p. 379–381, 1956.

Viereck, H. L.
Notes and descriptions of Hymenoptera from the western United States in the collection of the University of Kansas: V. 19, p. 264–326, 1905.

Volle, L. D.

1. (and Hetzer, W. A.) An anatomical study of *Melampodium leucanthum*, a drought resistant plant: V. 52, p. 355–359, plate I, fig. A–H; plate II, fig. A–D, 1949.
2. See: Hetzer, W. A. 2.
3. See: McGregor, R. L. 3.

Von Riesen, V. Lyle

1. Studies on bacteria-surface active agent relationships: I. Decomposition of anionic SAAA by bacteria: V. 58, p. 337–344, fig. 1–5, 1955.
2. Studies on bacteria-surface active agent relationships: II. Hydrolysis of ester lineages in anionic compounds by gram-negative species as shown by Nile-blue sulfate: V. 59, no. 3, p. 333–338, fig. 1–6, 1956.
3. (and Treece, E. Lee) Studies on bacteria-surface active agent relationships: III. Acquired resistance: V. 60, no. 1, p. 50–57, fig. 1–5, 1957.

Voth, Henry W.

Histological observations on the anterior pituitary gland: V. 46, p. 250–272, charts I–IV, 1943.

Wagoner, Charles

See: Hershey, J. Willard 14.

Wahl, N. R.

See: Sherwood, Noble P. 2.

Walkden, H. H.

Seasonal variation in resistance to high temperature of the cadelle and the confused flour beetle: V. 43, p. 283–288, tables 1–2, plate 1, fig. 1–4, 1940.

Walker, Edwin R.

The social significance of recent developments in science: V. 51, p. 482–489, 1948.

Walker, Myrl V.

1. Two "herds" of three-toed horses: V. 33, p. 137–143, 1930.
2. Notes on fossil lagomorphs: V. 34, p. 122–124, 1931.
3. A new burrowing lizard from the Oligocene of central Wyoming: V. 35, p. 224–231, 1932.
4. See: Sternberg, George F. 3.

Walker, Neil A.

See: Hungerford, H. B. 2.

Walker, P. F.

1. The gas engine in the commercial development of Kansas: V. 20, p. 208–216, 1906.
2. Report of the committee on research: V. 28, p. 341–354, 1918.

Wallace, Maurice H.

Chariton conglomerate in Lucas and Marion counties, Iowa: V. 44, p. 322–326, fig. 1–2, 1941.

Walter, E. W.

See: Bailey, E. H. S. 5.

Walters, Lora L.

Erysipheae of Riley County, Kansas: V. 14, p. 200–206, fig. 1–16, 1896.

Wands, Herbert O.

See: Cottle, Wm. C.

Wang, I. Cheng

(and Mitchell, H. L.; and Barham, H. N.) The phytin content of sorghum grain: V. 62, no. 3, p. 208–211, 1959.

Ward, Claud M.

See: Cross, F. B. 7.

Ward, M. L.

A bit of engineering at Mount Vernon: V. 20, p. 245–249, 1906.

Warfel, E. C.

1. The circle that is not a circle: V. 23, p. 60–61, 1909.
2. Kaw Valley anticline: V. 27, p. 53–57, 1915.

Waring, Sister Mary Grace

Simple atomic models as an aid in teaching chemistry: V. 43, p. 363–365, fig. 1–2, 1940.

Warner, Robert W.

Earth resistivity as affected by the presence of underground water: V. 38, p. 235–241, fig. 1–3, 1935.

Warren, Leonard Earnest

See: Harman, Mary T. 19.

Washburn, E. Roger

See: Olsen, Allen L. 1.

Watson, Bernard B.

The isolation of keratinophilic fungi from soils: V. 59, no. 2, p. 236–239, table 1, 1956.

Watson, G. N.

1. The quantitative separation of quinine and strychnine: V. 27, p. 99–101, 1915.
2. Quantitative determination of salicylic acid in the presence of acetyl salicylic acid: V. 28, p. 175–176, 1918.
3. Contributions of the drug laboratory of the University of Kansas in the enforcement of the Food and Drug Law: V. 29, p. 184–185, 1928.

Watt, D. B.

(and MacKintosh, D. L.) The influence of wrapping material on the keeping quality of fresh frozen pork sausage: V. 53, no. 1, p. 75–80, fig. 1–3, 1950.

Wearden, Stanley

(and Orazem, Frank) Yield variability as explained by variance components: V. 63, no. 2, p. 77–84, 1960.

Weatherby, Gerald

Alcohol and acetic acid from wood: V. 62, no. 2, p. 139–140, 1959.

Weatherly, Mrs. Josephine

A study in psychographs: V. 32, p. 129–133, graphs 1–2, 1929.

Weathers, Edra

1. The value of psychological diagnosis in a community program for child welfare: V. 41, p. 273–274, 1938.
2. An attempted standardization of tests for children with acuity disabilities: V. 37, p. 247–249, 1937.
3. A preliminary report on the Levy sibling technique as used with children at the Wichita Child Guidance Center: V. 42, p. 417–419, 1939.

Weaver, V. L.

Some characteristics of conductor tie wires: V. 40, p. 305–308, fig. 1–3, 1938.

Webb, Glenn R.

A new land snail, *Haplotrema concavum kendeighi* (Mollusca, Pulmonata): V. 54, no. 1, p. 78–82, plate 1, fig. 1–8; plate 2, fig. 9–17, 1951.

Webb, John

1. *Festuca octoflora* var. *hirtella*, a new grass for Kansas: V. 42, p. 207–208, fig. 1, 1939.
2. Identification of rodents and rabbits by their fecal pellets: V. 43, p. 479–481, fig. 1, 1940.
3. The life history and habits of buffalo grass: V. 44, p. 58–75, tables 1–11, fig. 1–17, 1941.

Webb, Olin

See: Jones, J. Knox, Jr. 1.

Webb, Robert G.

Notes on some amphibians and reptiles from northern Mexico: V. 63, no. 4, p. 289–298, 1960.

Weber, A. D.

The animal industries of Kansas: V. 50, no. 3, p. 245–260, fig. 1–2, 1–4 unnumbered pictures, 1947.

Weber, Clement

1. Plants that grow in Ellsworth County: V. 32, p. 68–79, 1929.
2. The flora of Clay County, Kansas: V. 33, p. 87–106, 1930.
3. The flora of Sheridan County, Kansas: V. 35, p. 161–178, 1932.
4. Additions to the flora of Sheridan County, Kansas: V. 43, p. 207, 1940.

Weber, George H.

1. The clinical application of a battery of phychological tests in the study of delinquents: V. 52, no. 4, p. 489–493, 1949.
2. Some qualitative aspects of an exploratory presonality study of fifteen juvenile automobile thieves: V. 53, no. 4, p. 548–556, 1950.

Weber, L. R.

1. Measurement of high resistance with a relaxation oscillator: V. 37, p. 173–174, 1934.
2. A vacuum tube amplifier model: V. 39, p. 201, 1937.
3. A note on the measurement of wave length by the diffraction grating: V. 40, p. 313, 1938.
4. The significance of the new microcamera to science teachers and students: V. 41, p. 237–238, 1938.
5. Some new lecture demonstrations: V. 41, p. 239–240, 1938.

Wedal, M. N.

(and Havenhill, L. D.) Has the quality of drugs improved since the enactment of the Food and Drugs Law?: V. 25, p. 167–169, 1913.

Wedel, Waldo R.

1. The Kansa Indians: V. 49, no. 1, p. 1–35, plate I, 2, 3a, 3b, 4, 5, table 1, fig. 1, 1946.
2. Prehistory and environment in the central Great Plains: V. 50, no. 1, p. 1–8, fig. 1–5, 1947.

Weeks, Mary Elvira

1. P-Phenetidine and P-Anisidine as oxidation indicators: V. 34, p. 158–163, tables 1a, 1b, 2a, 2b, 3, 4, 5b, 1931.
2. See: Caldwell, J. Marvin.

Weidlein, Edward R.

Mellon Institute—its organization and management: V. 48, no. 4, p. 359–372, 6 unnumbered pictures, 1946.

Weir, J. A.

On the concept of inherited constitution: V. 57, no. 2, p. 107–123, table 1, 1954.

Weith, A. J.

See: Bushong, F. W. 7.

Welch, Frank H.

1. See: Taft, Robert 47.
2. See: Taft, Robert 55.

Wellington, G. H.

(and MacKintosh, D. L.; and Vail, Gladys E.) Pork storage in freezer lockers: V. 43, p. 313–319, tables 1–4, 1940.

Wells, John D.

A study of the Eskridge shale: V. 53, no. 4, p. 535–543, fig. 1–3, 1950.

Wells, J. Ralph

1. The reclamation of strip mined areas in southeastern Kansas: V. 56, no. 3, p. 269–292, fig. 1–15, 1953.
2. See: Dennis, Parley 1.
3. See: Maupin, James K. 1.

Wentworth, Edward N.

Inheritance of fertility in sheep: V. 28, p. 243–244, table 1, 1918.

Wenzel, Duane G.

1. An inexpensive mouse cage: V. 58, no. 3, p. 408–410, fig. 1, 1955.
2. (and Skillman, Herbert C.) The effect of some orally-administered havonoids on procaine-bisulfite mortality of mice: V. 64, no. 1, p. 23–26, fig. 1, 1961.
3. See: Beal, Jack L. 2.

Werler, John E.

1. (and Shannon, Frederick A.) Two new lizards (genera *Abronia* and *Xenosaurus*) from the Los Tuxtlas Range of Veracruz, Mexico: V. 64, no. 2, p. 123–132, fig. 1–6, 1961.
2. See: Shannon, Frederick A. 2.

Werner, Henry

See: Dains, F. B. 6.

West, E. P.

The last submersion and emergence of southeastern Kansas from the Carboniferous seas, or those affecting the Carboniferous formation in Kansas: V. 9, p. 106–109, 1885.

West, R. R.

(and Bartel, M. H.; and Plenert, M. L.) Use of forms by the black-tailed jack rabbit in southwestern Kansas: V. 64, no. 4, p. 344–348, fig. 1–3, 1961.

Whaley, W. G.

See: Shantz, H. L.

Wheat, R.

(and Sartore, J. E.; and Pauley, J. L.) Effect of substrate salts on stearic acid films on water: V. 60, no. 4, p. 448–452, table 1, 1957.

Wheatley, M. D.

The effect of various disintegration products of trichina tissue on the developing larvae of *Trichinella spiralis*: V. 43, p. 483–489, table 1, 1940.

Wheeler, R. H.

1. The laws of human nature: V. 33, p. 72–73, 1930.
2. The effect of climate on human behavior in history: V. 46, p. 33–51, fig. 1–5, 1943.

Wheeler, Wm.

1. A fossil tusk found in Franklin County: V. 6, p. 11, 1878.
2. A partial list of the fishes of the Marais Des Cygnes at Ottawa: V. 6, p. 33–34, 1878.

Whelan, Don B.

Some mammals of an eastern Nebraska prairie: V. 39, p. 365–366, 1937.

White, J. A.

See: Gier, L. J.

White, Leland M.

(and Brewster, Ray Q.) Derivatives of l-imino-benzthiazole: V. 42, p. 241–244, tables I–II, 1939.

White, Mark

Geology of the Glass Mountains of western Oklahoma: V. 17, p. 199–200, 1901.

White, R. P.

(and Melchers, L. E.) Take-all disease of wheat in Kansas: V. 32, p. 141, 1929.

Whitla, R. E.

Some mineralogical analyses of eastern Kansas: V. 41, p. 229, 1938.

Whitnah, C. H.

See: Kunerth, Bernice L.

Wilbur, Donald A.

1. An outbreak of the beet webworm, *Loxostege sticticalis* L., in western Kansas: V. 38, p. 187–188, 1935.
2. Host plants of the leafhopper *Endria inimica* (Say) (Homoptera, Cicadellidae): V. 57, no. 2, p. 139–146, tables 1–3, 1954.
3. See: Schwitzgebel, R. B. 1.

Wilcox, Joseph

Astronomical polar measurements of the earth: V. 62, no. 2, p. 134–139, fig. 1–2, 1959.

Wilcox, Warren W.

Visual acuity and illumination: V. 35, p. 129–130, 1932.

Wildish, Myra

Spermatogenesis of *Orchelimum nigripes*: V. 39, p. 367–389, plates 1–5, fig. 1–49, 1937.

Wiley, Martin L.

See: Long, Charles A. 2.

Wilkinson, Paul N.

(and Hoecker, Frank E.) Selective placental transmission of radioactive alkaline earths and plutonium: V. 56, no. 3, p. 341–363, fig. 1–6, tables A–D, 1953.

Willard, J. T.

1. Note on a new Kansas mineral: V. 9, p. 25–26, 1885.
2. (and Failyer, G. H.) On a new apparatus for the continuous extraction of solids by a solvent: V. 10, p. 20–21, fig. 1 unnumbered, 1887.
3. On the sweetness of invert sugar, with some notes on its preparation: V. 10, p. 24–25, 1887.
4. On the variations in the sugar-content of sorghum vulgare: V. 10, p. 70–71, 1887.
5. Notes on the analysis of agricultural products: V. 12, p. 21, 1890.
6. On the sugars of watermelons: V. 12, p. 95–96, 1890.
7. (and Failyer, G. H.) A new glass siphoning extraction apparatus: V. 12, p. 165–166, 1890.
8. A breathing well in Logan County: V. 13, p. 73–75, 1893.
9. Variations in the nitrogen-content of maise and possibilities for improvement of it: V. 16, p. 46–48, 1899.
10. (and Kinsley, A. T.) On the effect of oxygen upon animal life: V. 17, p. 38–40, 1901.
11. Effect upon the composition of the soil of continuous cropping by wheat: V. 17, p. 41, 1901.
12. The mission and limitations of science: V. 18, p. 36–46, 1903.
13. (and Clothier, R. W.) The composition and digestibility of prairie hay and of buffalo-gray hay: V. 18, p. 59–60, 1903.
14. Native zinc: V. 19, p. 63, 1905.
15. (and Shaw, R. H.) Progress in the production of high protein corn: V. 19, p. 64–65, 1905.
16. The need of investigations in human nutrition: V. 19, p. 350–352, 1905.
17. Necrology—S. A. Baldwin: V. 19, p. 437–438, plate 32, 1905.
18. Necrology—Mrs. Mary E. Mudge: V. 19, p. 439–442, plate 33, 1905.
19. A proposed test for bleached flour: V. 20, p. 85, 1907.
20. William Ashbrook Kellerman: V. 22, p. 46–48, picture 1, 1909.
21. (and Swanson, C. O.) The baking qualities of flour as influenced by certain chemical substances, milling by-products and germination of the wheat: V. 24, p. 201–207, 1910.
22. Necrology—John Webster Parker: V. 24, p. 327–329, 1910.
23. Some nutritional characteristics of corn: V. 29, p. 187–201, tables 1–6, 1920. See also Special Publications.
24. See: Failyer, G. H. 5.
25. See: Failyer, G. H. 10.

Wille, Alvaro

Muscular adaptation of the nectar-eating bats (subfamily Glossophaginae): V. 57, no. 4, p. 315–325, fig. 1–10, 1954.

Williams, Austin B.

Six new crayfishes of the genus *Orconectes* (Decapoda: Astacidae) from Arkansas, Missouri, and Oklahoma: V. 55, no. 3, p. 330–351, plates 1–3, fig. 1–48, 1952.

Williams, C. C.

1. Measurements of stresses in railroad tracks: V. 28, p. 225, 1918.
2. See: Jewett, John M. 5.

Williams, Harold L.

See: Woods, L. L.

Williams, Kenneth L.

1. (and Chrapliwy, Pete S.) Selected records of amphibians and reptiles from Arizona: V. 61, no. 3, p. 299–301, 1958.
2. (and Chrapliwy, Pete S.; and Smith, Hobart M.) A new fringe-footed lizard (Uma) from Mexico: V. 62, no. 2, p. 166–172, plates 1–2, 1959.

Williams, Lizzie J.

What is good for an artist and what an artist is good for: V. 1, p. 54–61, 1872.

Williamson, Ollie Clinton

A study of the microflora of a grassland and a forested soil: V. 59, no. 1, p. 32–38, tables 1–4, 1956.

Willis, Harold

Some limnological conditions of Turkey Creek and two ponds near Shawnee, Kansas, from June 8, 1957 to August 16, 1957: V. 62, no. 1, p. 20–28, fig. 1, 1959.

Williston, S. W.

1. Note on the habits of some of the rarer Cincindelae: V. 6, p. 32–33, 1878.
2. On the adult male plumage of Wilson's phalarope: V. 6, p. 39, 1878.
3. *Spermophilus richardsonii*: V. 6, p. 39–40, 1878.
4. American Jurassic dinosaurs: V. 6, p. 42–46, 1878.
5. Table of the families of Diptera: V. 10, p. 122–128, 1887.
6. Notes and descriptions of North American Tabanidae: V. 10, p. 129–142, 1887.
7. On the structure of the Kansas chalk: V. 12, p. 100, 1890.
8. A new plesiosaur from Niobrara Cretaceous of Kansas: V. 12, p. 174–178, fig. 1–2 unnumbered, 1890.
9. In memoriam—E. P. West: V. 13, p. 68–69, 1893.
10. The Niobrara Cretaceous of western Kansas: V. 13, p. 107–111, plates 1–2 unnumbered, 1893.
11. An interesting food habit of the plesiosaurs: V. 13, p. 121–122, plate 1 unnumbered, 1893.
12. Notes and descriptions of Mydaidae: V. 15, p. 53–58, 1898.
13. The Pleistocene of Kansas: V. 15, p. 90–94, 1898.
14. Notice of some vertebrate remains from the Kansas Permian: V. 15, p. 120–122, plate 9, 1898.
15. Science in education: V. 16, p. 16–24, 1899.
16. A new turtle from the Kansas Cretaceous: V. 17, p. 195–199, plate 18; plate 19, fig. 1–2; plate 20; plate 21; plate 22, fig. 1–2, 1901.
17. The skull and extremities of diplocaulus: V. 22, p. 122–131, plates 1–4; plate 1a and 4a; plate 5, fig. 9c, 1909.
18. The progress of science since the foundation of the Kansas Academy of Science: V. 29, p. 53–61, 1920.

Wilson, Frank W.

Barrier reefs of the Stanton formation (Missourian) in southeast Kansas: V. 60, no. 4, p. 429–436, fig. 1–3, 1957.

Wilson, Guy West

1. Necrology—Dyche, Lewis L.: V. 28, p. 355–362, 1918.
2. Notes on some fungi of eastern Kansas: V. 30, p. 171–174, 1922.

Wilson, J. W.

Geology of Effingham Ridge—preliminary report: V. 15, p. 113–114, 1898.

Wilson, Murray A.

Engineering research in Kansas: V. 65, no. 1, p. 34–38, 1962.

Wilson, Robert W.

1. Two cases of dental anomaly in early Tertiary mammals: V. 58, no. 4, p. 514–518, fig. 1–4, 1955.
2. A new multituberculate from the Paleocene Torrejon fauna of New Mexico: V. 59, no. 1, p. 76–84, table 1, fig. 1, 1956.

Wilson, W. B.

1. The lactose-bile test for the colon bacillus: V. 22, p. 101–103, 1909.
2. A rare Mexican cycad: V. 23, p. 132–137, plates 1–3, 1909.
3. The Kansas Academy of Science, its position and mission: V. 33, p. 146–153, 1930.

Wilson, William D.

1. Notes on cestodes in paddlefish, *Polyodon spathula* (Walbaum), from the Missouri River: V. 59, no. 4, p. 459–460, 1956.
2. Parasites of fishes from Leavenworth County State Lake, Kansas: V. 60, no. 4, p. 393–399, table 1, 1957.

Wimmer, E. J.

(and Ayers, J. C.) The effect of antuitrin growth injections on female albino rats fed a diet deficient in vitamin A: V. 39, p. 391–393, 1937.

Winburn, Temple F.

Insect infestation in farm-stored grain in Kansas: V. 43, p. 389–390, table 1, 1940.

Winden, Barbara Ann

The determination of possible differences in the amino acids of the rice weevils, *Sitophilus oryzae* and *Sitophilus sasakii*: V. 64, no. 2, p. 159–162, 1961.

Winzard, Paul S.

Stratigraphic relations between Ellsworth and Castine formations, Castine, Maine: V. 61, no. 3, p. 330–333, fig. 1–2, 1958.

Witherspoon, Ward

1. Spermatid transformation in *Orchelimum nigripes* (DeGeer): V. 44, p. 434–447, plates I–IV, fig. 1–48, 1941.
2. See: Baumgartner, W. J. 5.

Withington, C. H.

1. Habits of *Lysiphlebus* sp.: V. 21, p. 138–140, 1908.
2. Habits of parasitic Hymenoptera II: V. 22, p. 314–322, tables 1–4, plate 1, fig. A–H; plate 2, fig. A–H, 1909.
3. Insect types and cotypes, a preliminary list of those in the Francis Huntington Snow entomological collections: V. 22, p. 327–335, 1909.

Wittlake, E. B.

The spore of *Oxymitra androgyna*: V. 56, no. 3, p. 305–307, fig. 1–6, 1953.

Wolf, David J.

The effects of extracellular products of streptococcus pyogenes on tissue culture cells: V. 65, no. 4, p. 472–477, fig. 1–4, 1962.

Wood, E. R.

An interlocking table for use in the calculation of multiple correlation coefficients: V. 32, p. 134–137, 1929.

Wood, T. B.

Determining the strength of flour: V. 29, p. 112–114, 1920.

Woods, H. I.

1. The eleven and one-half inch equatorial telescope, at Washburn College observatory: V. 18, p. 231–233, plate 1 unnumbered, 1903.
2. (and McFarland, Alice K.) The accuracy of a modern balance and set of weights: V. 20, p. 284–287, 1907.

Woods, L. L.

(and Williams, Harold L.) Acylation of coumarins in the presence of trifluoroacetic acid: V. 63, no. 3, p. 165–168, fig. 1, 1960.

Wooster, Lyman C.

1. Some notes on Kansas geology: V. 19, p. 118–121, plate 12, 1905.
2. The genesis and development of human instincts: V. 19, p. 381–386, fig. 12–13, 1905.
3. Development of the sciences in Kansas: V. 20, p. 23–41, fig. 1 unnumbered, 1906.
4. Additional observations on the geology of Kansas: V. 20, p. 75–82, 1906.
5. Soils and bacteria: V. 20, p. 203–208, 1907.
6. Antiquity of man's body building instincts: V. 21, p. 121–129, 1908.
7. The germ-plasm hypothesis of Weismann untenable: V. 22, p. 338–350, 1909.
8. An esker at Mason, Michigan: V. 23, p. 91–94, plates 1–2, 1909.
9. The origin and development of plant and animal instincts: V. 24, p. 227–231, 1910.
10. Notes on the moraine of the glacier southwest of Topeka: V. 25, p. 43–44, 1913.
11. Bitropism: V. 25, p. 146–149, 1913.
12. The geological development of Kansas: V. 26, p. 55–69, 1914.
13. The chert gravels of eastern Kansas: V. 27, p. 58–62, 1915.
14. The scientist on the farm: V. 28, p. 319–325, 1918.
15. Heredity and education: V. 28, p. 325–339, 1918.
16. Botany in Kansas during the past fifty years: V. 29, p. 41–43, 1920.
17. Glacial moraines in the vicinity of Estes Park, Colorado: V. 29, p. 91–94, 1920.
18. Do use and disuse modify heredity?: V. 29, p. 95–98, 1920.
19. The scientific value of carbonic acid: V. 33, p. 144–145, 1930.
20. Field work vs. laboratory work: V. 34, p. 33–37, 1931.
21. The chert gravels of Lyon County, Kansas: V. 37, p. 157–160, 1934.
22. The water supply of the upper Neosha River Basin and the laws of rainfall: V. 38, p. 217–222, 1935.
23. Description of amphibian tracks found at Osage County, Kansas: V. 38, p. 349, 1935.
24. The study of geology—its values: V. 39, p. 185–189, 1937.
25. Some of the founders and workers of the Kansas Natural History Society and the Kansas Academy of Science: V. 40, p. 215–220, 1938.

Wooster, L. D.

1. The present status of certain mammals in western Kansas: V. 34, p. 112–113, table 1, 1931.
2. Notes on the effects of drought on animal population in western Kansas: V. 38, p. 351–352, 1935.
3. The contents of owl pellets as indicators of habitat preferences of small mammals: V. 39, p. 395–397, tables 1–2, 1937.
4. The fauna—mammals and birds of "Rock City": V. 40, p. 197–202, fig. 1–2, plate 4, 1938.
5. An attempt at an ecological evaluation of predators on a mixed prairie area in western Kansas: V. 41, p. 387–394, fig. 1–2, tables 1–2, 1938.
6. Monument Rocks, Gove County, Kansas fauna: V. 42, p. 327, 1939.
7. An ecological evaluation of predates on a mixed prairie area in western Kansas: V. 42, p. 515–517, fig. 1–2, table 1, 1939.

8. III—Animal life of the Castle Rock region—the Castle Rock Area in Gove County, Kansas: V. 43, p. 302–303, 1940.
9. Some recent biological developments with social implications: V. 51, no. 4, p. 469–472, 1948.

Worley, H. E.

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Wright, Lennel I.

Early developmental stages in the albino rat: V. 34, p. 109–111, 1931.

Yantzi, M. F.

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Yates, J. A.

1. The Ottawa gas wells: V. 18, p. 106–108, fig. 1, tables 1–2, 1903.
2. Value of the work of the scientist to humanity: V. 21, p. 31–46, graphs 1–4 unnumbered, 1908.
3. A description of the changes in the Cottonwood Limestone south of Cottonwood Falls, Kansas: V. 23, p. 75–90, 1909.
4. Study of certain features of the Lawrence Shales: V. 22, p. 117–121, 1909.

Yokoyama, K.

(and McGregor, R. L.) Variation of *Quercus muehlesbergii* in Kansas: V. 54, p. 370–373, fig. 1 unnumbered, table 1, plate 1, fig. 1–4, 1951.

Young, C. C.

1. Occurrence of manganese in water: V. 23, p. 37–40, tables 1–3, 1909.
2. Note on the waters from the sandstone in the Lawrence Shales: V. 24, p. 199–200, 1910.
3. On the immunity of the Kansas bottom ground waters to changes in the composition of the Kansas River water: V. 25, p. 153–159, plates 1–15, 1913.

Young, C. M.

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Youngstrom, Karl

The significance of reticulocytes in embryonic pig blood: V. 35, p. 97, 1932.

Younkin, Russell J.

(and Fox, Roy L.) Kansas snowfall: V. 43, p. 321–324, tables 1–2, plate 1, fig. 1–2, 1940.

Zabel, H. E.

The contribution of Kansas to *American Men of Science* 7th Edition: V. 48, p. 409–421, fig. 1–6, 1946.

Ziefle, Adolph

The importance of physiological assay in the standardization of some drugs: V. 22, p. 73–76, 1909.

Zimmerman, Wm. A.

(and Jaques, Howard W.; and Boyd, Herbert F.) The evolution of a group research project at the Wichita Guidance Center: V. 60, no. 2, p. 183–188, 1957.

Zingg, A. W.

Speculations on climate as a factor in the wind erosion problem of the Great Plains: V. 56, no. 3, p. 371–377, fig. 1–4, 1953.

Zinszer, Harvey A.

1. Methods of instantaneous photography: V. 33, p. 49–56, fig. 1–6, 1930.
2. Modes of vapor diffusion in spark discharges: V. 34, p. 118–121, fig. 1–2, 1931.
3. Selecting and installing a college telescope: V. 35, p. 109–112, 1932.
4. (and Zinszer, R. H.) Adapting a laboratory spectrometer to a study of the Raman effect: V. 36, p. 164–165, 1933.
5. Famous early American observatories: V. 47, p. 15–49, fig. 1–2, 1944.
6. A revamped laboratory course in electronics based upon wartime practices: V. 49, p. 205–207, 1946.
7. The near ultra violet spectrum of copper produced by the hot spark in vacue: V. 36, p. 175–186, fig. 1–3, plate II, 1934.
8. See: Drees, Linus S. 1.
9. See: Gibbens, E. Elliott 1.
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11. See: Johnston, Miford W. 1.
12. See: Read, B. W. 1.
13. See: Read, B. W. 2.

Zinszer, Richard S.

1. A simple method of color matching: V. 38, p. 243–245, fig. 1–3, 1935.
2. The effect of hydrostatic pressure on polarization in an optical system: V. 41, p. 241–244, fig. 1–2, tables 1–3, 1938.

Zinszer, W. K.

1. Controlling the color of iron clays: V. 41, p. 177–179, 1938.
2. Magnesium, its manufacture and alloys: V. 46, p. 161–163, 1943.

Zohner, Jane

Electric metal detector: V. 63, no. 2, p. 64–66, fig. 1, 1960.

Zohner, Linda

The construction of a magnetic resonance spectrometer: V. 65, no. 3, p. 291–294, 1962.

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Botanical research
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1946: Agrelius 17.
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1948: Agrelius 19.
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1950: Agrelius 21.
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1930: Gates, F. C. 5.
1931: Gates, F. C. 6.
1932: Gates, F. C. 7.
1933: Gates, F. C. 8.
1934: Gates, F. C. 9.
1935: Gates, F. C. 10.
1936: Gates, F. C. 12.
1937: Gates, F. C. 13.
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1945: Gates, F. C. 28.
1946: Gates, F. C. 29.
1947: Gates, F. C. 30.
1948: Gates, F. C. 33.
1949: Gates, F. C. 35.
1950: Gates, F. C. 39.
1951: Gates, F. C. 40.
1952: Gates, F. C. 41.
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1946: Pady, S. M. 5.
1951: Rogerson, C. T. 1.
1952: Rogerson, C. T. 2.
1953–1954: Rogerson, C. T. 3.
1955–1956: Rogerson, C. T. 4.
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1949: Hansing, E. D. 4.
1951: Hansing, E. D. 5.
1956: Hansing, E. D. 6.
1959: Hansing, E. D. 7.
1950: Johnston, C. O. 7.
1952: Johnston, C. O. 8.
1955: Johnston, C. O. 9.
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Bulletin 2. (1916) Shirk, J. A. G. American highways (presidential address). p. 2–9.
Congdon, Leon A. A study of foods for infants. p. 9–16. See also Vol. 29, p. 209–216.

Bulletin 3. (1918) Wilson, G. W. Fiftieth annual meeting, Lawrence, Kansas, March 15 and 16, 1918. Report of the secretary for the year 1917–1918, p. 2–10. Minutes of the meeting, p. 11–15.

Librarian's report, 1891–1892. Smyth, B. B. Accessions to the library of the Academy of Science from November 1, 1890 to October 31, 1892, p. 1–32. See also Vol. 13, p. 137–168.

Committee on Conservation and Ecology (1937). Rock City, a proposed national monument in Ottawa County, Kansas. p. 2–16.

Gates, F. C. The identification of Kansas woody plants by their twigs.

Jones, Elmer T. Simplified percentage table of whole numbers 1–100. See also Vol. 47, no. 3, p. 359–360.

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Editorial Board (1937). Suggestions regarding preparation of manuscripts for publication in the *Transactions* of the Kansas Academy of Science. Vol. 39, p. 399–405.

Baumgartner, W. J. (1938). The preparation of drawings and photographs for reproduction in the *Transactions*. Vol. 41, p. 395–397.

Schoewe, Walter H. (1962). Suggestions to Academy authors. Vol. 65, no. 2, p. 206–213.
——— (1962). To authors. See Editor's Page, Vol. 65, no. 3, p. 302.

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* See also First Annual Report, State Board of Agriculture, 1872, p. 341–345.

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1	1872	1873	64	5	Parker	S; Miller Bros.	S, A (reprint)	St. Bd. Agri. Ann. Rpt. 1; Reprint, 1895
2	1873	1874	25	6	Parker	S; Miller Bros.	S, A (reprint)	do 2; Reprint, 1895
3	1874	1875	46	7	Parker	S; Miller Bros.	S, A (reprint)	do 3; Reprint, 1895
4	1875	1875	67	8	Wherrell	S; Knaus	S, A (reprint)	do 4; Reprint, 1896
5	1876	1877	76	9	Savage	S; Knaus	S, A (reprint)	do 5; Reprint, 1896
6	1877–78	1878	94	10, 11	Savage	S; Knaus	S, A (reprint)	Biennial report. Reprint, 1896
7	1879–80	1880	135	12, 13	Popenoe	S; Knaus	S, A (reprint)	do Reprint, 1896
8	1881–82	1883	80	14, 15	Popenoe	S	S	do
9	1883–84	1885	145	16, 17	Popenoe	S	S	do
10	1885–86	1887	155	18, 19	Cragin	S	S	do
11	1887–88	1889	129	20, 21	Smyth	S	S	do
12 Pt. I	1889–90	1890	189	22, 23	Smyth	S	S	do No Pt. II
13	1891–92	1893	175	24, 25	Smyth	S	S	do
14	1893–94	1896	370	26, 27	Smyth	S	S	do
15	1895–96	1898	226	28, 29	Smyth	S	S	do
16	1897–98	1899	320	30, 31	Smyth	S	S	do
17	1899–1900	1901	248	32, 33	Smyth	S	S	do
18	1901–02	1903	287	34, 35	Grimsley	S	S	do
19	1903–04	1905	461	36, 37	Grimsley	S	S	
20 Pt. I	1905	1906	272	38	Lovewell	S	S	
20 Pt. II	1906	1907	316	39	Lovewell	S	S	
21 Pt. I	1907	1908	283	40	Lovewell	S	S	No Pt. II
22	1908–09	1909	398	41	Lovewell	S	S	
23	1909	1911	176	42	Lovewell	S	S	V. 23 and 24 published under one cover
24	1910	1911	338	43	Lovewell	S	S	do
25	1911–12	1913	190	44, 45	Lovewell	S	S	Biennial report
26	1913	1914	115	46	Lovewell	S	S	
27	1914	1915	141	47	Lovewell	S	S	
28	1916–17	1918	380	48, 49	Swingle	S	S	Biennial report
29	1918	1918	219	50	Wilson	S	S	
30	1919–21	1919–21	463	51–53	White	S	S	Triennial report

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31	1922–28	1922–28	279	54–60	White	A—Kimbell	A	V. 31–36 published under one cover. Septennial report
32	1929	1929	143	61	Johnson	A—Kimbell	A	do
33	1930	1930	188	62	Johnson	A—Kimbell	A, S	do
34	1931	1931	313	63	Gates	A—Kimbell	A, S	do
35	1932	1932	273	64	Gates	A—Kimbell	A, S	do
36	1933	1933	327	65	Gates	A—Kimbell	A, S	do
37	1934	1934	341	66	Gates	S	S	
38	1935	1935	353	67	Gates	S	S	
39	1936	1936	406	68	Gates	S	S	
40	1937	1938	422	69	Gates	S	S	
41	1938	1938	416	70	Gates	S	S	
42	1939	1939	517	71	Gates	S	S	
43	1940	1940	489	72	Gates	S	S	
44	1941	1941	448	73	Taft	A—World	A, S	
45	1942	1942	378	74	Taft	A—World	A, S	
46	1943	1943	308	75	Taft	A—World	A, S	
47	1944–45	1944–45	432	76	Taft	A—World	A, S	Quarterly publication. Only numbers 1–3 publ. No. 3 publ. 1945
48	1945–46	1945–46	474	77	Taft	A—World	A, S	do No. 4 publ. 1946
49	1946–47	1946–47	462	78	Taft	A—World	A, S	do No. 3–4 publ. 1947
50	1947	1947	367	79	Taft	A—World	A, S	do No. 3–4 publ. as one number
51	1948	1948	496	80	Taft	A—World	A, S	do
52	1949	1949	521	81	Taft	A—World	A, S	do
53	1950	1950	599	82	Taft	A—World	A, S	do
54	1951	1951	581	83	Taft	A—World	A, S	do
55	1952	1952	502	84	Taft	A—World	A, S	do
56	1953	1953	470	85	Taft	A—World	A, S	do
57	1954	1954	528	86	Taft	A—World	A, S	do
58	1955	1955	589	87	Taft-Cross	A—World	A, S	do
59	1956	1956	502	88	Cross	A—World	A, S	do
60	1957	1957	459	89	Cross	A—World	A, S	do
61	1958	1958	470	90	Cross	A—World	A, S	do
62	1959	1959	274	91	Cross	A—World	A, S	do
63	1960	1960	378	92	Cross	A—World	A	do Supplement—STIP report, 60 p. Sept. 30, 1960
64	1961	1961	374	93	Cross	A—World	A	do
65	1962	1962	479	94	Cross-Schoewe	A—World	A, S	do

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